



EUROPEAN CIVIL AVIATION CONFERENCE

**ECAC / JAA PROGRAMME  
FOR SAFETY ASSESSMENT OF FOREIGN AIRCRAFT**

**SAFA REPORT**

**(01 JANUARY 2004 TO 31 DECEMBER 2004)**

## TABLE OF CONTENTS

	PAGE
FOREWORD.....	3
1. MAIN FEATURES OF THE SAFA PROGRAMME .....	5
1.1 General.....	5
1.2 Integration of the Programme in the overall aviation safety chain.....	5
2. EVOLUTION OF THE SAFA PROGRAMME IN 2004.....	7
3. TRAINING OF INSPECTORS.....	8
4. CENTRAL SAFA DATABASE .....	9
5. DATA COLLECTION .....	10
6. AREAS OF INSPECTION .....	12
7. MAIN RESULTS OF THE SAFA INSPECTIONS.....	14
7.1 Inspection findings in general .....	14
7.2 Inspection findings and their categories .....	15
7.3 Inspection findings on a regional basis .....	17
7.4 Inspection findings related to checklist items .....	18
7.5 The top 3 significant and major inspection findings related to checklist items..	18
8. ACTION TAKEN AFTER RAMP INSPECTIONS.....	23
9. FUTURE ACTIONS.....	24
10. INTERNATIONAL COOPERATION.....	25
10.1 Co-operation with Civil Aviation authorities of non-ECAC States.....	25
10.2 Co-operation with EUROCONTROL.....	25
10.3 Co-operation with ICAO .....	25
APPENDIX A.....	26
List of States of Inspected Operators .....	26
APPENDIX B.....	29
Aircraft Types Inspected .....	29
APPENDIX C.....	33
Operators inspected.....	33
APPENDIX D .....	49
Results of inspections per inspection item.....	49
APPENDIX E.....	51
Results of inspections per inspection item per year.....	51
APPENDIX F.....	56
Results of inspections per inspection item.....	56

## **FOREWORD**

### **By the President of ECAC**

Before inviting you to read this report and the overview it provides of the implementation of the SAFA programme in the year 2004, I wish to highlight the background to the programme and some of its features.

The Chicago Convention, signed in 1944 established the International Civil Aviation Organisation (ICAO) and provided the framework for the development of international civil aviation. The primary obligation on signatories to the Convention is to oversee the safety of air operations by entities under their jurisdiction and to ensure that they meet the Standards and Recommended Practices (SARPs) established by ICAO.

During the last ten years, globalisation has had an impact on air transport as well as on many other areas. There are also increasingly intense economic, political, environmental and other pressures on civil aviation policy, particularly at the national and regional levels. The system has become increasingly complex and the maintenance of a high level of safety requires more and more human, technological and financial resources. Information available to ICAO shows that a significant number of Contracting States have experienced major difficulties in carrying out their safety oversight functions. These factors have increased the need for each State to be able to maintain confidence in the safety oversight provided by other States in discharging their responsibilities under the Chicago Convention.

In 1996, ICAO launched a voluntary programme of safety assessment of national aviation authorities of its member States. This was replaced in 1998 by a universal safety oversight audit programme (USOAP) adopted by ICAO Assembly Resolution A32-11. Under USOAP, ICAO carries out regular, mandatory, systematic and harmonized safety audits of all its member States. These audits commenced in 1999 and cover the field of airworthiness/operations of aircraft as well as personnel licensing. They are designed to determine the level of implementation by States of the critical elements of a safety oversight system and of relevant ICAO SARPs, associated procedures, guidance material and safety-related practices. In a companion move, the European Civil Aviation Conference (ECAC) launched in 1996 its own programme of Safety Assessment of Foreign Aircraft programme (SAFA) as a complement to the ICAO audits. The two programmes are linked through a Memorandum of Understanding between ICAO and ECAC.

The SAFA programme is not intended to replace or take over from the States of Registry/Operator their respective responsibilities for safety oversight. Experience shows that, although limited in their scope and depth, SAFA inspections give a general indication of the safety of foreign operators. Inspections also contribute to the safe operation of the particular aircraft, which has been inspected, as operators usually take prompt measures to correct discrepancies identified by SAFA inspections.

An additional benefit of the programme is that it provides the opportunity for the Aviation Authorities of the inspecting State and the State of the Operator or the State of Registry to co-operate in resolving specific safety-related problems. The programme is also helpful to ECAC States by providing them with a tool to alert each other of cases of significant safety problems involving particular foreign aircraft or operator, to share and analyse information, to identify generic safety challenges and to develop and implement adequate measures to tackle them.

The SAFA Programme has its place in the safety chain and, therefore, provides a valuable contribution to aviation safety in general.

L. Kiss

President of ECAC

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# **1. MAIN FEATURES OF THE SAFA PROGRAMME**

## **1.1 General**

The main features of the SAFA Programme are:

- Its application by all 41 ECAC Member States<sup>1</sup>, including the sharing of information through a centralised database
- Its bottom-up approach: the Programme is built around ramp inspections of aircraft
- Its non-discriminatory nature — SAFA applies equally to aircraft from ECAC and non-ECAC States
- Its close relationship with the ICAO Universal Safety Oversight Audit Programme.

The principles of the Programme are simple: in each ECAC State, foreign aircraft (ECAC or non-ECAC) can be subject to a ramp inspection, chiefly concerned with the aircraft documents and manuals, flight crew licenses, the apparent condition of the aircraft and the presence and condition of mandatory cabin safety equipment. The references for these inspections are contained in the Standards of ICAO Annexes 1 (Personnel Licensing), 6 (Operations of Aircraft) and 8 (Airworthiness of Aircraft).

These checks are carried out in accordance with a procedure, which is common to all ECAC Member States. Their outcome are then the subject of reports, which also follow a common format. In the case of significant irregularities, the operator and the appropriate Aviation Authority (State of Operator or Registry) are contacted in order to arrive at corrective measures to be taken not only with regard to the aircraft inspected but also with regard to other aircraft which could be concerned in the case of an irregularity which is of a generic nature. All data from the reports, as well as supplementary information (for example a list of actions undertaken and finalised following an inspection) are centralised in a computerised database set up by the Joint Aviation Authorities (JAA), the Associated Body of ECAC.

## **1.2 Integration of the Programme in the overall aviation safety chain**

Based on the SAFA inspections performed over the last few years, experience shows that these give a general indication of the safety of foreign operators. However, this indication is limited in the sense that no full picture is obtained about the safety of that particular aircraft or operator. This is due to the fact that certain aspects are difficult to assess during an inspection (e.g. Crew Resource Management), the limited time available to perform an inspection, and the limited depth of inspection.

A full assessment of a particular aircraft or operator can only be obtained through the continuous oversight by the responsible Aviation Authority (State of Operator or State of

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<sup>1</sup> Albania, Armenia, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Moldova, Monaco, Netherlands, Norway, Poland, Portugal, Romania, Serbia and Montenegro, Slovakia, Slovenia, Spain, Sweden, Switzerland, The former Yugoslav Republic of Macedonia, Turkey, Ukraine, United Kingdom.

Registry). Nonetheless, the information gained through the SAFA Programme is useful and SAFA inspections contribute to the safe operation of the particular aircraft which has been inspected.

The central database is particularly useful as it contributes to a rapid flow of information to the States participating in the SAFA Programme. Information from all inspections performed is shared, thus contributing to a more complete picture about a certain aircraft, aircraft type or operator.

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## **2. EVOLUTION OF THE SAFA PROGRAMME IN 2004**

In 2004, some events influenced significantly the development of the programme beyond the regular improvements which were brought into it on an annual basis through lessons learnt from its implementation. This with the aim to make a better use of the potential offered by the programme.

In early 2004, ECAC Directors General of Civil Aviation approved an extensive set of measures to improve the SAFA programme along the following main axes: mutual alarming and information sharing between member States; quality of performing the inspections and reporting to the database; increased public disclosure of SAFA information (how best to implement this measure is still under consideration); and increased participation from member States. Procedures, bringing into operation some of these measures have been developed and implemented (e. g. in the area of mutual alerting and information sharing between member States) and work continues on the development and implementation of the other ones.

Besides, the European Commission has proposed to the European Union Council and to the European Parliament a “Directive on the safety of third countries aircraft using Community airports”. In April 2004, this Directive was adopted by the European Parliament and the Council. The Directive provides a legal basis for the performance by EU Member States of ramp checks on non-EU aircraft. Although there are many common elements between the SAFA Programme and the Directive, there are also some important differences. Work has been initiated, in close co-operation with the European Commission to assess the impact of the Directive on the SAFA Programme. Its adjustment will be needed in order to allow EU Member States, through their participation in the SAFA Programme, to meet their EU obligations.

Finally, the operational elements of the SAFA Programme are currently implemented by the Central JAA on behalf of ECAC. With the establishment of the European Aviation Safety Agency (EASA), a number of key activities of Central JAA were transferred to EASA in 2004 and this process will continue until the majority of activities are transferred. Consequently, the JAA Headquarters is being downsized. Consideration is being given to best-suited arrangements required for the continuation of the SAFA Programme, including management and operation of its database, on a pan-European scale.

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### **3. TRAINING OF INSPECTORS**

In the year 2004, the training of SAFA inspectors from ECAC Member States continued. Three training sessions were held which were attended by more than 110 inspectors. One session was organised in Rome/Italy, another in Lisbon/Portugal and the third session in Palma de Mallorca/Spain. For 2005, additional courses will be organised. Since the start of the training programme, some 430 inspectors from 34 ECAC States have participated in the training courses.

These courses deal with the application and practical usage of the SAFA procedures. In addition, practical experience is shared among participants. The training provides a positive contribution to a common approach among ECAC States to the way inspections are performed. A new feature added to the training sessions is a half day visit of an aircraft parked at the airport ramp. Having an aircraft available allows a practical demonstration of each inspection item of the SAFA checklist.

With the training sessions having a more theoretical approach, a new initiative has been launched to stimulate the exchange of practical experience. The “Inspectors Exchange Programme” aims to provide on-the-job training by allowing inspectors of one ECAC State to visit their colleagues in another ECAC State and to closely witness their working methods. Such participation in the day-to-day operation of a ramp inspection scheme enables individual inspectors to increase their practical knowledge and skills. A side benefit is the potential the programme offers to progress towards uniform application of SAFA inspection and reporting procedures.

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#### **4. CENTRAL SAFA DATABASE**

In 2000, the SAFA database became fully operational. Subsequently, a major adaptation was implemented in 2002 enhancing its “user-friendliness” and data retrieval function. In 2004 a further enhancement was implemented which includes, amongst others, a (restricted) access of the database via Internet.

The database contains the reports of the ramp inspections performed by ECAC States. Although it is managed and maintained by the JAA, the inclusion of reports in the database remains a responsibility of the individual National Aviation Authorities (NAA) of ECAC Member States.

Data contained in the database is considered confidential in the sense that it is only shared with other ECAC Member States and is not available to the general public. The database can be accessed by the National Aviation Authorities of ECAC Member States via the (secured) Internet.

With a few exceptions all ECAC National Aviation Authorities have access to the database. Therefore, the number of reports contained in the database reflects the actual number of inspections carried out.

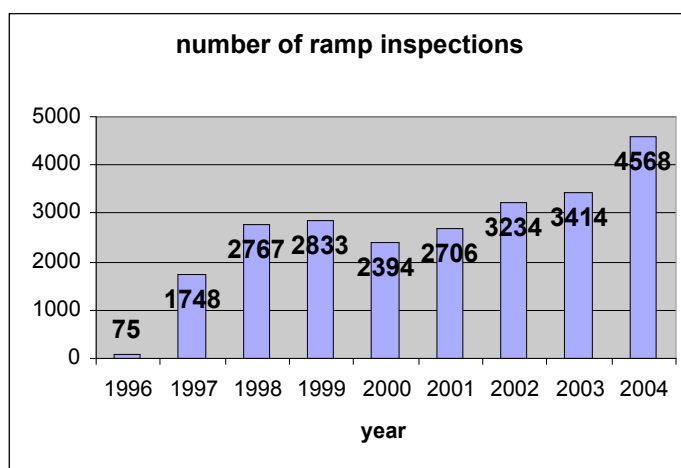
This annual report is based upon the reports that are contained in the database.

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## 5. DATA COLLECTION

In general, ECAC Member States are dedicated to the SAFA Programme. 35 of them have participated — in one form or the other — since 1996, when the Programme was launched. More than 23,500 inspections have been carried out and recorded in the database since the start of the Programme.

During the year 2004, 31 States performed some 4,568 inspections.



When comparing the total number of ramp inspections performed in 2004 (4,568 inspections) to the number performed in the previous year 2003 (3,414 inspections), the following conclusions can be drawn:

- The number of ECAC States which performed SAFA ramp checks has increased from 26 to 31 States.
- Four States, which were not active in 2003, or in the years before, restarted to perform ramp inspections in 2004.
- Since the year 2000, a steady increase in the total number of inspections can be observed. This may be explained by the fact that the total number of States participating in the Programme has increased. In addition, in most of the States the total number of inspections performed per State tends to steadily increase over the years.
- One State (Italy), after several years of inactivity, performed a large number of inspections in 2004. These accounted for a major part of the increase in the overall number of inspections performed.

The table below indicates Member States which carried out inspections and, for comparison purposes, those which did so in earlier years.

Member State	1996	1997	1998	1999	2000	2001	2002	2003	2004
Albania									
Armenia									
Austria (*)			✓						
Azerbaijan									
Belgium	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bosnia Herzegovina									
Bulgaria		✓							
Croatia							✓	✓	✓
Cyprus						✓			
Czech Republic		✓	✓	✓	✓	✓	✓	✓	✓
Denmark	✓	✓	✓	✓	✓	✓	✓	✓	✓
Estonia				✓	✓	✓	✓	✓	✓
Finland		✓	✓	✓	✓	✓	✓	✓	✓
France	✓	✓	✓	✓	✓	✓	✓	✓	✓
Germany	✓	✓	✓	✓	✓	✓	✓	✓	✓
Greece			✓			✓	✓	✓	✓
Hungary						✓	✓	✓	✓
Iceland		✓			✓	✓	✓	✓	✓
Ireland	✓	✓	✓	✓	✓	✓	✓	✓	✓
Italy	✓	✓							✓
Latvia			✓	✓	✓	✓		✓	✓
Lithuania			✓				✓	✓	✓
Luxembourg		✓		✓	✓		✓		✓
Malta								✓	✓
Moldova					✓			✓	✓
Monaco		✓							
Netherlands	✓	✓	✓	✓	✓	✓	✓	✓	✓
Norway			✓	✓	✓	✓	✓	✓	✓
Poland		✓	✓	✓	✓	✓	✓	✓	✓
Portugal		✓	✓	✓	✓	✓		✓	✓
Romania			✓	✓	✓	✓	✓	✓	✓
Serbia and Montenegro									
Slovak Republic			✓	✓	✓	✓	✓		✓
Slovenia			✓	✓		✓	✓	✓	✓
Spain			✓	✓	✓	✓	✓	✓	✓
Sweden		✓	✓	✓	✓	✓	✓	✓	✓
Switzerland		✓	✓		✓	✓	✓	✓	✓
The former Yugoslav Republic of Macedonia (FYROM)						✓	✓	✓	✓
Turkey	✓	✓	✓	✓					✓
Ukraine									
United Kingdom	✓	✓	✓	✓	✓	✓	✓	✓	✓

(\*) Austria has performed a number of SAFA inspections in 2004. National legislation does not allow sharing these reports with other ECAC Member States. Consequently the Austrian reports are not included in the SAFA database.

## 6. AREAS OF INSPECTION

In nearly all States, the number of flights by foreign operators is far greater than the inspection capability. This means that only spot checks are possible. This can be done at random or it might be decided to focus the inspection according to certain criteria, as listed below. In case Member States decide to focus their inspections, this decision is based on national policies and priorities and also, when relevant, on recommendations, endorsed by the ECAC Directors General of Civil Aviation. These recommendations are based on an analysis of the SAFA database and take into account Member States' national priorities.

There are five areas on which the inspections can be focused:

- Specific State of Operator (checking operators from a particular State)
- Specific aircraft type
- Specific nature of operations (scheduled, non-scheduled, cargo, etc.)
- Specific foreign operator; or
- Specific aircraft identified by its individual registration mark.

Appendices A to C list the States of Operator, aircraft types and operators inspected in 2004. They highlight the wide coverage of the SAFA Programme and, more importantly, its non-discriminatory application.

The smooth operation of the Programme can also be illustrated by the table below, which aggregates the information in the Appendices and provides an overview of activities.

### OVERVIEW OF THE SAFA PROGRAMME IN THE YEAR 2004

Inspections	4,568 INSPECTIONS...
OPERATOR	...ON 701 DIFFERENT FOREIGN OPERATORS...
STATE OF OPERATOR	...FROM 131 STATES...
AIRCRAFT TYPE	...OPERATING 179 DIFFERENT (SUB)TYPES OF AIRCRAFT

Because of the non-discriminatory character of the SAFA Programme, aircraft both from ECAC and non-ECAC States are inspected. The following table shows the results (3 years moving average, fully from 1998 onwards):

	<b>Inspections on ECAC Operators</b>	<b>Inspections on non-ECAC Operators</b>
1996	51%	49%
1997	57%	43%
1998	57%	43%
1999	58%	42%
2000	61%	39%
2001	64%	36%
2002	66%	34%
2003	63%	37%
<b>2004</b>	<b>67%</b>	<b>33%</b>
<b>Average</b>	<b>60 %</b>	<b>40 %</b>

Over the years, the percentage of inspections on aircraft from ECAC operators has steadily increased. Several reasons have contributed to this fact. The number of ECAC Member States has grown, resulting in an increased volume of “ECAC traffic”. In recent years, many new operators emerged in ECAC Member States and may have attracted more attention on their operations.

In the early years of the SAFA Programme, a significant percentage of the inspections were directed at CIS-built aircraft (Antonov, Ilyushin, Tupolev, Yakovlev) operated by non-ECAC operators. However, because of noise regulations, the population of these CIS-built aircraft is gradually decreasing.

In conclusion, it can be stated that the distribution of SAFA inspections reflects the fact that the vast majority of all flights within ECAC Member States are carried out by ECAC operators.

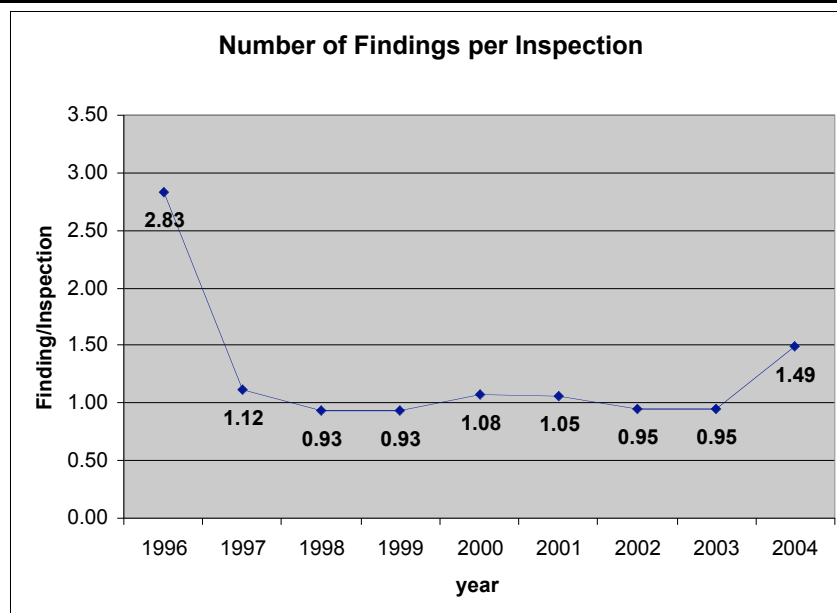
## 7. MAIN RESULTS OF THE SAFA INSPECTIONS

### 7.1 Inspection findings in general

A first starting point regarding the findings, which are deviations from ICAO Standards, is the quantitative approach. This compares the total number of findings (F) to the total number of inspections (I) and the inspected items (II).

During the inspection, a checklist is used. It comprises a total of 54 different inspection items. In the majority of cases, not all items are checked during an inspection because the time between the arrival of the aircraft and its departure is not sufficient to perform a complete inspection. Therefore, the relationship between the total number of findings and the total number of inspected items might give a better understanding. The results are presented in the table below.

	YEAR									TOTAL
	1996	1997	1998	1999	2000	2001	2002	2003	2004	1996-2004
TOTAL INSPECTIONS (I)	75	1,748	2,767	2,833	2,394	2,706	3,234	3,414	4,568	23738
TOTAL INSPECTED ITEMS (II)	1,675	31,413	88,400	95,524	80,454	82,935	93,681	100,014	148,850	722946
TOTAL FINDINGS (F)	212	1,951	2,573	2,631	2,587	2,851	3,064	3,242	6,799	25910
FINDINGS / INSPECTIONS (F/I)	2.83	1.12	0.93	0.93	1.08	1.05	0.95	0.95	1.49	1.09
FINDINGS / INSPECTED ITEMS (F/II)	0.127	0.062	0.029	0.028	0.032	0.034	0.033	0.032	0.046	0.036



With the exception of the early years (1996-1997), the range of the ratio findings / inspections (F/I) varied slightly between 0.93 and 1.08 during the years 1998 until 2003. This meant that, on average, during each inspection between 0.93 and 1.08 findings were established. In 2004 we see an upward change. On average 1.49 findings have been established during each inspection.

When the findings are related to an individual checklist item inspected, the same upward trend is noticeable. For every 100 checklist items inspected on average three findings were established (F/II is 0.03) in the previous years, in 2004 this increased to 4.6 findings per 100 items inspected (F/II is 0.046).

This increase of the ratio findings / inspections (F/I) in 2004 may be attributed to the following:

- In general the majority of States concentrate their inspections on those operators which had findings in the past, this leading to potentially more findings.
- New ICAO requirements have come into force and are added to the inspection checklist thus leading to an expansion of the inspection scope.
- Due to training and continuing building up of experience by the inspectors, the inspections are carried out in more depth.
- Some specific States have established relatively more findings than in the previous years.

## **7.2 Inspection findings and their categories**

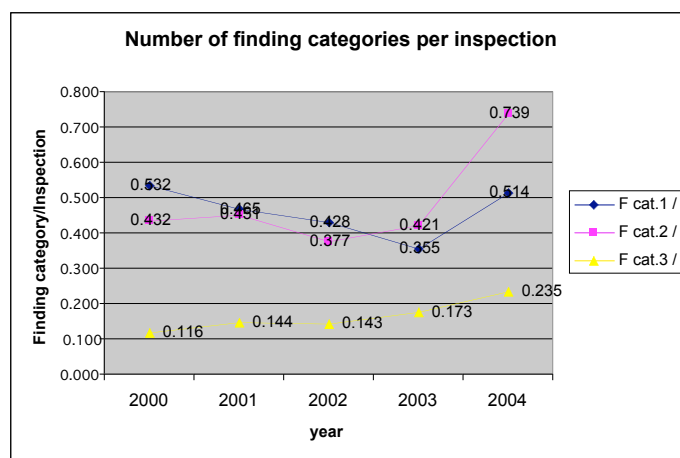
Not only the absolute number of inspection findings needs to be considered, but also their “seriousness”. To this end, three categories of findings have been defined. A “Category 1” finding is called a minor finding, “Category 2” is a significant finding and “Category 3” a major finding. The terms “minor”, “significant” and “major” relate to the level of deviation from the ICAO Standard. The SAFA procedures contain guidance on the categorisation of findings to ensure a consistent approach by all ECAC States.

The prime purpose of categorising the findings is to classify the compliance with a standard and the seriousness of non-compliance with this standard. It needs to be stressed that non-compliance with a standard does not necessarily mean an immediate threat to the safety of the aircraft and its occupants. For example: if an aircraft is piloted by a person who does not carry their pilot’s license with them, it is considered a Category 3 (major) finding and a serious deviation from the standard. However, if the pilot has accidentally left the license at home but is properly qualified to pilot the aircraft, it is evident that there is no direct influence on safety. Nevertheless, a Category 3 finding is always of major concern for the National Aviation Authorities involved.

In 2000, the database was adapted and the categories of findings have been recorded since. The results are presented in the table below.

Year	No. inspections (I)	No. findings (F)				Ratio of findings (Fcat./I)			
		Cat. 1 (minor)	Cat. 2 (significant)	Cat. 3 (major)	total	F cat.1 / I	F cat.2 / I	F cat.3 / I	F total / I
2000	2394	1274	1035	278	2587	0.532	0.432	0.116	1.081
2001	2706	1258	1221	389	2868	0.465	0.451	0.144	1.060
2002	3234	1384	1219	461	3064	0.428	0.377	0.143	0.947
2003	3414	1212	1439	591	3242	0.355	0.421	0.173	0.950
2004	4568	2349	3375	1075	6799	0.514	0.739	0.235	1.488
total	16316	7477	8289	2794	18560	0.458	0.508	0.171	1.138

The graph below presents the finding categories related to the number of inspections.



From the graph it may be concluded that up to 2003 the number of Category 1 (minor) findings related to the number of inspections has shown a downward trend. In 2004 there is a sharp upward trend.

Regarding the number of Category 2 (significant) findings related to the number of inspections until 2003 it remained more or less stable with a sharp increase in 2004. The number of Category 3 findings related to the number of inspections shows since the beginning a continuous and steady increase. General conclusions regarding the year 2004 figures:

- The overall number of findings per inspection shows a considerable increase.
- The contribution of Category 1 and Category 2 finding is increasing at a rapid rate.
- The contribution of Category 3 findings shows a continuous increase.



- The relative increase in the number of findings can partly be explained by the fact that with progressing insight in the nature of the findings, the SAFA procedures have been adapted to reflect that certain deficiencies/findings are allocated a higher category of finding.

### 7.3 Inspection findings on a regional basis

In order to identify any regional differences, the finding categories were related to operators from different regions of the world and grouped according to ICAO Regional Offices. The results for the year 2004 are presented in the table below.

ICAO Region	No. of States inspected	No. of Operators inspected	No. of landings at ECAC airports	Inspections (I)	No. of findings (F)				Ratio of findings (Fcat./I)			
					Cat. 1 (minor)	Cat. 2 (significant)	Cat. 3 (major)	Total	F cat.1/I	F cat.2/I	F cat.3/I	F total/I
APAC	17	31	40717	147	57	93	73	223	0,39	0,63	0,50	1,52
ESAF	14	22	10120	67	30	86	66	182	0,45	1,28	0,99	2,72
EUR/NAT	54	529	2483633	3688	1793	2578	649	5020	0,49	0,70	0,18	1,36
MID	17	41	69957	416	304	432	171	907	0,73	1,04	0,41	2,18
NACC	12	51	145057	142	66	71	45	182	0,46	0,50	0,32	1,28
SAM	6	11	9486	46	33	34	21	88	0,72	0,74	0,46	1,91
WACAF	11	16	4144	56	66	81	50	197	1,18	1,45	0,89	3,52
<b>total</b>	131	701	2763114	4568	2349	3375	1075	6799	0,51	0,74	0,24	1,49

Operators from States belonging to the NACC and EUR/NAT ICAO Region have fewer findings per inspection than average.

Operators from States belonging to the SAM, APAC, MID, ESAF and WACAF ICAO Region have more findings per inspection than average.

- 1 APAC-Asian and Pacific ICAO Region: Australia, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China (incl. Hong Kong and Macao), Cook Islands, Democratic People's Republic of Korea, Fiji, India, Indonesia, Japan, Kiribati, Lao People's Democratic Republic, Malaysia, Maldives, Marshal Islands, Micronesia, Mongolia, Myanmar, Nauru, Nepal, New Zealand, Palau, Papua New Guinea, Philippines, Republic of Korea, Samoa, Singapore, Solomon Islands, Sri Lanka, Thailand, Tonga, Vanuatu, Viet Nam.
- 2 ESAF-Eastern and Southern African ICAO Region: Angola, Botswana, Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, Somalia, South Africa, Swaziland, Uganda, United Republic of Tanzania, Zambia, Zimbabwe.
- 3 EUR/NAT-European and North Atlantic ICAO Region: Albania, Algeria, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Malta, Monaco, Morocco, Netherlands (incl. Netherlands Antilles), Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, San Marino, Serbia and Montenegro, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, The former Yugoslav Republic of Macedonia, Tunisia, Turkey, Turkmenistan, Ukraine, United Kingdom (incl. Cayman Islands, Bermuda), Uzbekistan.
- 4 MID-Middle East ICAO Region: Afghanistan, Bahrain, Cyprus, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libyan Arab Jamahiriya, Oman, Pakistan, Qatar, Saudi Arabia, Sudan, Syrian Arab Republic, United Arab Emirates, Yemen.
- 5 NACC-Northern American, Central American and Caribbean ICAO Region: Antigua and Barbuda, Bahamas, Barbados, Belize, Canada, Costa Rica, Cuba, Dominican Republic, El Salvador, Grenada, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, United States of America.
- 6 SAM-South American ICAO Region: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Panama, Paraguay, Peru, Suriname, Uruguay, Venezuela.
- 7 WACAF-Western and Central African ICAO Region: Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Congo, Cote d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, Togo.

Chapter 6 indicates that in 2004 (3 years moving average) 67% of all inspections were performed on ECAC operators. The remaining 33% were inspections of aircraft operated by non-ECAC carriers.

In the table below, the findings and categories are presented.

ICAO Region	No. of States inspected	No. of Operators inspected	Inspections (I)	No. of findings (F)				Ratio of findings (Fcat./I)			
				Cat. 1 (minor)	Cat. 2 (significant)	Cat. 3 (major)	Total	F cat.1/I	F cat.2/I	F cat.3/I	F total/I
ECAC States	41	457	3044	1340	1661	453	3454	0,44	0,55	0,15	1,13
non-ECAC States	90	244	1524	1009	1714	622	3345	0,66	1,12	0,41	2,19
<b>total</b>	<b>131</b>	<b>701</b>	<b>4568</b>	<b>2349</b>	<b>3375</b>	<b>1075</b>	<b>6799</b>	<b>0,51</b>	<b>0,74</b>	<b>0,24</b>	<b>1,49</b>

For each category of findings, the relative number of findings is higher for operators from non-ECAC States than from ECAC States.

#### 7.4 Inspection findings related to checklist items

**Appendix D** provides the results regarding each individual inspection item (III) which has been inspected. It indicates the number of times that a particular inspection item was checked, the number of findings and the ratio F/III. **Appendix E** tabulates and graphically presents the values of the latter ratio for the years 2000 to 2004. **Appendix F** provides the detailed breakdown of findings for the year 2004 by categories.

#### 7.5 The top 3 significant and major inspection findings related to checklist items

The inspection checklist consists of four major parts. Part A concerns items to be inspected in the flight deck of the aircraft. Part B of the checklist concerns items to be checked in the (passenger) cabin, and mainly consists of safety equipment. Part C relates to the general technical condition of the aircraft which needs to be verified during a walk around check. Part D checklist items concern the cargo compartment of the aircraft and the cargo carried.

Any general findings not covered by Parts A, B, C or D can be administered under Part E (general) of the checklist.

When considering the findings established during a SAFA inspection, Category 2 (significant) and Category 3 (major) findings require the highest attention when it comes to the need for rectification. For each part of the checklist, the top 3 of Category 2 and 3 findings related to the number of inspections are given in the table below.

## A – Inspection items concerning flight deck

				Findings (F)					Cat. 2 & 3/III
No.	Inspection item	Description	No. inspections	Cat. 1	Cat. 2	Cat. 3	Cat. 2 & 3	total	
1	Flight Deck/ General	Equipment	2928	35	347	15	362	397	0.124
2	Flight Deck/ Documentation	Minimum Equipment List (MEL)	2851	34	264	6	270	304	0.095
3	Flight Deck/ Documentation	Manuals	2671	38	237	3	240	278	0.090

### A.1 Equipment

ICAO Annex 6 requires aircraft to be equipped with a Ground Proximity Warning System (GPWS). This system issues a warning to the flight crew if the aircraft comes too close to the ground or terrain below. Some CIS-built aircraft types (Tupolev, Ilyushin, Antonov, Yakovlev) either have no such system installed or have a 3-channel SSOS system installed, which does not fully meet the ICAO Standard. In addition it is now required that the GPWS has a forward looking terrain avoidance function. In several cases aircraft have not been re-equipped with this latest version of the GPWS system.

### A.2 Minimum Equipment List (MEL)

The MEL specifies the circumstances under which an aircraft may be operated in spite of certain equipment being inoperative. The MEL is established by the aircraft operator and approved by the responsible State of Operator. The majority of the findings concerned the lack of evidence of approval of the MEL, the MEL not being carried onboard or being out of date. Also in many cases instead of the MEL the MMEL (Master MEL) is being used. The MMEL is established by the aircraft manufacturer as a baseline document for the operator to establish the MEL.

### A.3 Manuals

It mainly concerns the Flight Operations Manual (FOM) which provides flight procedures for the flight crew. Frequent findings established are: no approval by the State of Operator, content of the manual does not meet the ICAO Standards, the manual is not up-to-date or being drafted by an other airline.

## B – Inspection items concerning passenger cabin

No.	Inspection item	Description	No. inspections	Findings (F)					Cat. 2 & 3/III
				Cat. 1	Cat. 2	Cat. 3	Cat. 2 & 3	total	
1	Safety / Cabin	Emergency exit, lighting and marking, torches	2385	62	124	56	242	0.075	2385
2	Safety / Cabin	Access to emergency exits	2409	6	101	70	177	0.071	2409
3	Safety / Cabin	Cabin Attendant's Station and crew rest area	2493	24	62	41	127	0.041	2493

### B.1 Emergency exits, lighting and marking, torches

The findings mainly concerned emergency exit lights which were not functioning properly, torches (flashlights) which were not available, in poor condition or not available in sufficient quantity, and non-installation or inadequately functioning of floor proximity (emergency) escape path marking systems. These systems indicate the location of the emergency exits. They are important especially when there is a fire or smoke in the passenger cabin or when the normal cabin lights are not functioning. Example of this last non-compliance is situations whereby sections of the escape path marking, covering several seat rows, were out of order.

### B.2 Access to emergency exits

Access to emergency exits must always be clear of obstacles. In case of an emergency, the path to the emergency exits and doors should be clear, allowing a rapid evacuation of the aircraft. Findings established were obstruction of access by catering boxes, luggage and cargo. Another frequent finding, especially on CIS-built aircraft, was the fact that the seats in front of the emergency exits can fold forward and in case of an emergency may block the path to the exit. Also in many cases the locks of the tray tables on the seats in the area of emergency exits do not prevent the tray tables from obstructing an unrestricted access to the exits.

### B.3 Cabin attendant's station and crew rest area

In the cabin there are dedicated seats for the cabin crew at specific locations, allowing to cabin crew to manage the cabin evacuation in case of an emergency. It is required that these seats have a harness installed. In many cases and especially on CIS-built aircraft instead of a harness the seat is only equipped with a seat belt. In many cases these seats are foldable. In several cases the mechanism which automatically folds the seat was not functioning. The seat then may obstruct the pathway or the access to an emergency exit.

## C – Inspection items concerning general condition of aircraft

No.	Inspection item	Description	No. inspections	Findings (F)					Cat. 2 & 3/III
				Cat. 1	Cat. 2	Cat. 3	Cat. 2 & 3	total	
1	Aircraft Condition	Wheels, tires and brakes	3629	114	132	57	303	0.052	3629
2	Aircraft Condition	Leakage	3232	159	105	24	288	0.040	3232
3	Aircraft Condition	General external condition	3885	348	108	22	478	0.033	3885

### C.1 Wheels, tyres and brakes

Wheels, tyres and brakes need to be in proper condition. Reported findings were tyres worn beyond limits, cuts in the tyre, leakage of hydraulic fluid in landing gear areas, brakes worn beyond limits.

### C.2 Leakage

On an aircraft one will find many systems containing various sorts of liquids (oil, fuel, water, hydraulic fluid etc.). Hydraulic, fuel and water leakages were reported. Areas concerned were the toilet service panel, wings, flaps and slats, engines, Auxiliary Power Unit, landing gear, etc.

### C.3 General external condition

This concerns findings established during the visual inspection of the exterior of the aircraft. Findings included missing rivets, corrosion, dents in leading edges (wing / engine), missing static dischargers, missing registration marks, paint peeling off, evidence of a bird strike, navigation lights inoperative, markings and door operating placards not legible etc.

## D – Inspection items concerning cargo compartment

No.	Inspection item	Description	No. inspections	Findings (F)					Cat. 2 & 3/III
				Cat. 1	Cat. 2	Cat. 3	Cat. 2 & 3	total	
1	Cargo	Safety of cargo on board	1247	15	36	159	210	0.156	1247
2	Cargo	Dangerous Goods	393	4	9	46	59	0.140	393
3	Cargo	General condition of cargo compartment	2200	54	71	27	152	0.045	2200

### D.1 Safety of cargo on board

In several cases it was established that cargo in the cargo holds was not properly secured. Heavy items (such as spare wheels) were not restrained, which might lead to damage of the aircraft in case of rapid acceleration / deceleration. In other cases, barrier nets were either not

installed or in poor condition. Cargo containers and pallets were in poor condition. Locks to secure the containers were not in the proper position or unserviceable.

## **D.2 Dangerous Goods**

Certain types of material need special care and treatment because they are flammable, toxic, poisonous, etc. These are commonly referred to as “Dangerous Goods”. When properly packed, stored, labelled, protected etc., Dangerous Goods may be transported. Findings that have been recorded included improper storage and labelling of the Dangerous Goods carried onboard, unavailability of the required documents and manuals (Emergency Response Guide), missing authorisation for the transportation of Dangerous Goods and no proper notification to the Captain (NOTOC) of Dangerous Goods carried onboard.

## **D.3 General condition of cargo compartment**

Findings related to the general condition of the cargo compartment, such as damage to panels, deficiencies with the locking system, improper repairs of panels, and missing separation nets.

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## 8. ACTION TAKEN AFTER RAMP INSPECTIONS

Based on the category, number and nature of the findings, several actions may be taken.

If the findings indicate that the safety of the aircraft and its occupants is impaired, corrective actions will be required. Normally the aircraft commander will be asked to address the serious deficiencies which are brought to his attention. In rare cases, where inspectors have reason to believe that the aircraft commander does not intend to take the necessary measures on the deficiencies reported to him, they will formally ground the aircraft. The formal act of grounding by the State of Inspection means that the aircraft is banned from further flights until appropriate corrective measures are taken.

In 2004, the following examples of events led to the grounding of aircraft: no MEL onboard but aircraft had outstanding technical deficiencies, very poor technical condition of aircraft, no maintenance release issued, heavy corrosion, evidence that mandatory Airworthiness Directives (AD's) were not embodied, no emergency lights to indicate emergency exits, improper repairs, heavy leakages, improper cargo loading, no up-to-date navigation documentation, and tyres worn out beyond limits.

Another type of action is called "corrective actions before flight authorised". Before the aircraft is allowed to resume its flight, corrective action is required to rectify any deficiencies which have been identified.

In other cases, the aircraft may depart under operational restrictions. An example of such a restriction would be the case where there is a deficiency regarding passenger seats. Operation of the aircraft is possible under the condition that the deficient seats are not occupied by any passengers.

It is standard practice that the aircraft commander of the aircraft which has just been inspected is debriefed about the findings. In addition, Category 2 and Category 3 findings are communicated to the responsible Aviation Authority and the home base of the operator with the request to take appropriate action to prevent reoccurrence.

In some cases, when the findings on an aircraft are considered important, individual Member States may decide to revoke the entry permit of that aircraft. This means that the particular aircraft is no longer allowed to land at airports or fly in the airspace of that State. Such a ban can be lifted if the operator of the aircraft proves that the problems have been properly corrected. Such entry permit repercussions can therefore be, and usually are, of a temporary character.

The table below lists the actions taken as a result of inspections performed in the years 2000-2004.

		YEAR					TOTAL
		2000	2001	2002	2003	2004	
	NO. OF INSPECTIONS	2,394	2,706	3,234	3,414	4,568	16,316
	NO. OF FINDINGS	2,587	2,868	3,064	3,242	6,799	18,560
ACTIONS TAKEN	INFORMATION TO THE AUTHORITY AND OPERATOR	150	262	289	360	698	1,759
	RESTRICTION ON THE AIRCRAFT OPERATION	0	2	17	23	48	90
	CORRECTIVE ACTIONS BEFORE FLIGHT AUTHORISATION	184	210	225	321	683	1,623
	AIRCRAFT GROUNDED	16	28	12	20	17	93
	ENTRY PERMIT REPERCUSSIONS	9	4	6	7	15	41

## **9. FUTURE ACTIONS**

The future activities will be centred on the development and implementation of the SAFA improvement measures mentioned in Chapter 2. Also, the adaptations to the SAFA programme in the light of the applicability date for the implementation of EU Directive 2004/36/CE will need to be progressed.

Other actions contemplated relate to training and to database developments.

With regard to the training of inspectors, in addition to the standard centralised training of SAFA inspectors, the Inspector Exchange Programme will be developed further to be an effective tool for practical training and harmonisation efforts.

The database will be further enhanced with regard to features assisting the inspector when preparing an inspection, expanded analytical tools, administrating historical sequences of follow-up actions that have been taken, etc.

The inspection checklist will be amended to include additional inspection items. These will stem from new regulations coming into force and most probably will be in the field of operational equipment to be carried in the Flight Deck.

The database will be accessible to other parties involved in the SAFA Programme, such as the European Commission and the ICAO Safety Oversight Audit Section. It is also envisaged that dedicated access to the database will be given to non-ECAC States enabling to consult inspection reports of aircraft under their responsibility, on the basis of agreements covering the bilateral exchange of safety data. Such an agreement is foreseen with the Federal Aviation Administration (FAA) of the USA and the State Civil Aviation Authority of the Russian Federation (SCAAR).

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## **10. INTERNATIONAL COOPERATION**

### **10.1 Co-operation with Civil Aviation authorities of non-ECAC States**

In order to best achieve the objectives of SAFA programme it is necessary to cooperate with Civil Aviation Authorities of non-ECAC States. In 2004, ECAC cooperated with the national Civil Aviation Authorities of Egypt and the Russian Federation aimed at improving the safety performance of the operators from these two States when flying to ECAC airports. Cooperation with the Federal Aviation Administration of the United States took place and consisted in bilateral exchange of the results of inspections, performed on each others operators in the framework of SAFA and similar US programme for inspection of non-US operators.

### **10.2 Co-operation with EUROCONTROL**

In 2004, ECAC and EUROCONTROL decided to develop a cooperation in the framework of the SAFA programme. The two sides initiated the development of a related Cooperation Agreement. It is to contribute to the improvement of the SAFA programme alarming function by using the possibilities of the EUROCONTROL CFMU unit to alert ECAC member States of flight plans to and from ECAC airports pertaining to aircraft or operators that have been subjected to operating restrictions in one or more ECAC States and on which focused SAFA inspections may be performed. It is expected that the Cooperation Agreement will be signed in the Spring of 2005.

### **10.3 Co-operation with ICAO**

Co-operation with ICAO has been pursued, as illustrated by the provision of a lecturer to the SAFA training courses, and by the sharing of information.

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## APPENDIX A

### List of States of Inspected Operators

Operator State	ICAO Code
Afghanistan	OA
Albania	LA
Algeria	DA
Angola	FN
Antigua and Barbuda	TA
Argentina	SA
Armenia	U5
Aruba	T2
Australia	Y
Austria	LO
Azerbaijan	UB
Bahrain	OB
Bangladesh	VG
Barbados	TB
Belarus	UM
Belgium	EB
Bermuda	TX
Brazil	SB
British Virgin Islands	TU
Brunei Darussalam	WB
Bulgaria	LB
Cabo Verde (Cape Verde)	GV
Cameroon	FK
Canada	C
Cayman Islands	MW
Chile	SC
China	ZB
Colombia	SK
Comoros	F1
Croatia	LD
Cuba	MU
Cyprus	LC
Czech Republic	LK
Democratic Rep. Of the Congo	FZ
Denmark	EK
Dominican Republic	MD
Egypt	HE
Equatorial Guinea	FG
Eritrea	HH
Estonia	EE
Ethiopia	HA

Finland	EF
France	LF
Gabon	FO
Georgia	UG
Germany	ED
Ghana	DG
Greece	LG
Hungary	LH
Iceland	BI
India	VA
Iran	OI
Ireland	EI
Israël	LL
Italy	LI
Jamaica	MK
Japan	RJ
Jordan	OJ
Kazakhstan	UA
Kenya	HK
Korea (North)	ZK
Korea / South Korea	RK
Kuwait	OK
Kyrgyzstan (Kirghizistan)	U2
Latvia (Letonia)	EV
Lebanon	OL
Liberia	GL
Libyan Arab Jamahiriya (Libya)	HL
Lithuania	EY
Luxembourg	EL
Macedonia (F Y R of Macedonia)	LW
Madagascar	FM
Malaysia	WM
Malta	LM
Mauritania	GQ
Mauritius	FI
Mexico	MM
Moldova (Republic of Moldova)	LU
Monaco	LN
Mongolia	ZM
Morocco	GM
Mozambique	FQ
Netherlands	EH
Netherlands Antilles	TN
New Zealand	NZ
Nigeria	DN
Norway	EN

Pakistan	OP
Poland	EP
Portugal	LP
Qatar	OT
Romania	LR
Russian Federation	U
Rwanda	HR
Saint Kitts and Nevis	TK
Saint Vincent / Grenadines	TV
Saudi Arabia	OE
Senegal	GO
Serbia and Montenegro	LY
Seychelles	FS
Sierra Leone	GF
Singapore	WS
Slovakia	LZ
Slovenia	LJ
South Africa	FA
Spain (España)	LE
Sri Lanka	VC
Sudan	HS
Suriname	SM
Swaziland	FD
Sweden	ES
Switzerland	LS
Syrian Arab Republic (Syria)	OS
Tadjikistan	UT
Taiwan (Republic of China)	RC
Thailand	VT
Trinidad and Tobago	TT
Tunesia	DT
Turkey	LT
Turkmenistan	U3
Uganda	HU
Ukraine	UK
United Arab Emirates	OM
United Kingdom	EG
United States of America	K
Uzbekistan	U4
Vanuatu	NV
Venezuela	SV
Viet Nam	VV
Yemen	OY
Zimbabwe	FV

## APPENDIX B

### Aircraft Types Inspected

Aircraft Type	ICAO Code
695 Jetprop Commander 980/1000 Rockwell	AC95
Airbus A-300B2/4-1/2/100/200, A-300C4-200	A30B
Airbus A-300B4-600	A306
Airbus A-300ST Super Transporter, Beluga	A3ST
Airbus A-310 (CC-150 Polaris)	A310
Airbus A318	A318
Airbus A-319	A319
Airbus A-320	A320
Airbus A-321	A321
Airbus A330-200	A332
Airbus A330-300	A333
Airbus A340-200	A342
Airbus A340-300	A343
Airbus A340-500	A345
Antonov An-12	AN12
Antonov An-124 Ruslan	A124
Antonov AN-2	AN2
Antonov An-24	AN24
Antonov An-26	AN26
Antonov AN-72/74	AN72
ATR-42-200/300/320	AT43
ATR-42-400	AT44
ATR-42-500	AT45
ATR-72	AT72
BAC-111 One-Eleven	BA11
BAe ATP	ATP
BAe RJ-100	RJ1H
BAe RJ-70	RJ70
BAe RJ-85	RJ85
BAe146-100, Statesman	B461
BAe146-200, Quiet Trader, Statesman	B462
BAe146-300	B463
BAe-3100 Jetstream 31	JS31
BAe-3200 Jetstream Super 31	JS32
BAe-4100 Jetstream 41	JS41
Beech 100 King Air	BE10
Beech 1900	B190
Beech 200,1300 Super King Air	BE20
Beech 300	BE30
Beech 400 Beechjet	MU30
Beech 90	BE9L

Beech B300 Super King Air 350	B350
BELL 222	B222
BN-2A Mk3 Trislander	TRIS
Boeing 707-300	B703
Boeing 717-200	B712
Boeing 727-100	B721
Boeing 727-200	B722
Boeing 737-200	B732
Boeing 737-300	B733
Boeing 737-400	B734
Boeing 737-500	B735
Boeing 737-600	B736
Boeing 737-700, BBJ	B737
Boeing 737-800	B738
Boeing 747-100	B741
Boeing 747-200	B742
Boeing 747-300	B743
Boeing 747-400	B744
Boeing 747SP	B74S
Boeing 757-200	B752
Boeing 757-300	B753
Boeing 767-200	B762
Boeing 767-300	B763
Boeing 777-200	B772
Boeing 777-300	B773
Bombardier BD-700 Global Express	GLEX
Canadair CL-44-O Guppy	CL4G
Canadair CL-600 Challenger	CL60
Canadair RJ-100 Regional Jet	CRJ1
Canadair RJ-200 Regional Jet	CRJ2
Canadair RJ-700 Regional Jet	CRJ7
Cessna 182	C182
Cessna 206	C206
Cessna 208 Caravan	C208
Cessna 310	C310
Cessna 340	C340
Cessna 401,402	C402
Cessna 500 Citation, Citation 1	C500
Cessna 501 Citation 1SP	C501
Cessna 525 CitationJet	C525
Cessna 550, 551	C550
Cessna 560 Citation 5	C560
Cessna 650 Citation 3/6/7	C650
Cessna 750 Citation 10	C750
Cessna F406 Caravan 2	F406
Cessna T303 Crusader	C303

Commander 500	AC50
Dassault Falcon 2000	F2TH
Dassault Falcon-Mystère 20/200	FA20
Dassault Falcon-Mystère 50	FA50
Dassault Falcon-Mystère 900	F900
DC-10	DC10
DC-6	DC6
DC-8	DC8
DC-9	DC9
DHC-6 Twin Otter	DHC6
DHC-7 Dash 7	DHC7
DHC-8-100 Dash 8	DH8A
DHC-8-200 Dash 8	DH8B
DHC-8-300 Dash 8	DH8C
DHC-8-400 Dash 8	DH8D
Dornier 228	D228
Dornier 328	D328
Dornier Do-28A/B	DO28
Douglas DC-8-50, Jet Trader (EC-24)	DC85
Douglas DC-8-60	DC86
Douglas DC-9-10	DC91
Douglas DC-9-20	DC92
Douglas DC-9-30	DC93
Douglas DC-9-50	DC95
EMBRAER 170, 175	E170
Embraer EMB-110/111Bandeirante	E110
Embraer EMB-120 Brasilia	E120
Embraer EMB-121 Xingu	E121
Embraer EMB-145, ERJ-145	E145
Embraer ERJ-135	E135
Eurocopter AS-350/550 Ecureuil	AS50
Eurocopter AS-365/565 Dauphin2	AS65
Fairchild Dornier 328JET, Envoy 3	J328
Fairchild SA-226TB,SA-227TT	SW3
Fairchild SA-226TC,SA-227AC/AT	SW4
Fairey BN-2A/B Islander	BN2P
Fokker 100	F100
Fokker 50, Maritime Enforcer	F50
Fokker 70	F70
Fokker F-27 Friendship	F27
Fokker F-28 Fellowship	F28
Gulfstream Aerospace, Gulfstream 4	GLF4
Gulfstream Aerospace, Gulfstream 5	GLF5
Hawker Siddeley HS-748, BAe-748	A748
HS-125-1/2/3/400/600	H25A
HS-125-700	H25B

IAI 1124 Westwind, Sea Scan	WW24
Ilyushin Il-18/20/22/24	IL18
Ilyushin Il-62	IL62
Ilyushin Il-76/78,Gajaraj	IL76
Ilyushin Il-86	IL86
Ilyushin Il-96	IL96
Learjet 31	LJ31
Learjet 35, 36	LJ35
Learjet 45	LJ45
Learjet 55	LJ55
Learjet 60	LJ60
Let L-410/420 Turbolet	L410
Lockheed C-130,AC-130, etc	C130
Lockheed Electra 1188	L188
Lockheed L-1011 TriStar	L101
MD-11	MD11
MD-81	MD81
MD-82	MD82
MD-83	MD83
MD-87	MD87
MD-88	MD88
MD-90	MD90
MOONEY M-20K/M	M20T
Pilatus PC-12	PC12
Piper Cheyenne 1	PAY1
Piper PA-23-150/160 Apache	PA23
Piper PA-28 Cherokee	PA28
Piper PA-31/31P Navajo	PA31
Piper PA-34 Seneca	PA34
Piper PA-46 Malibu	PA46
ROBINSON R-44	R44
Saab 2000	SB20
SAAB SF-340	SF34
Short 360	SH36
Short SC-5 Belfast	BELF
SIKORSKY S-61	S61
SIKORSKY S-76,H-76,AUH-76	S76
SN-601 Corvette	S601
Socata TBM-700	TBM7
Soko G-4	G4
Tupolev Tu-134	T134
Tupolev Tu-154	T154
Tupolev Tu-204/214/224/234	T204
Tupolev Tu-334	T334
Yak-40	YK40
Yak-42/142	YK42



## APPENDIX C

### Operators inspected

Operator	ICAO Code
ABELAG AVIATION	AAB
ACH HAMBURG GMBH	7AC
ACM AIR CHARTER GMBH	BVR
AD AVIATION LIMITED	VUE
ADRIA AIRWAYS	ADR
AEGEAN AVIATION	AEE
AER ARANN TEORANTA	REA
AER LINGUS TEORANTA	EIN
AERO AIRLINES	EAY
AERO FLIGHT GMBH &CO. LUFTVERK	ARF
AERO LLOYD FLUGREISEN GMBH	AEF
AEROCOM	MCC
AERODIENST GMBH, NURNBURG	ADN
AEROFLOT - RUSSIAN INT. AIRL.	AFL
AEROFLOT DON/DONAVIA	DNV
AEROLINEAS ARGENTINAS	ARG
AEROMARINE	7AE
AERONOVA	OVA
AEROSUPERBATICS LTD	8AI
AEROSVIT AIRLINES	AEW
AEROVIAS DE MEXICO, S.A. DE CV	AMX
AEROVIS AIRLINERS LTD.	VIZ
AEROVISTA AIRLINES	AAP
AFRICAN AIRLINES CORPORATION	AAW
AFRICAN EXPRESS AIRWAYS	AXK
AFRICAN INTERNATIONAL AIRWAYS	AIN
AFRICAN SAFARI AIRWAYS LTD.	QSC
AFRIJET AIRLINES	FRJ
AIGLE AZUR	AAF
AIR 2000 LTD	AMM
AIR ADRIATIC	AHR
AIR ALGERIE	DAH
AIR ALPS AVIATION G.M.B.H.	LPV
AIR ALSIE A/S	MMD
AIR ARMENIA	ARR
AIR ASTANA	KZR
AIR ATLANTIQUE	AAG
AIR BALEAR	ABH
AIR BALTIC CORPORATION SIA	BTI
AIR BANGLADESH (PVT) LIMITED	BGD

AIR BERLIN, INC.	BER
AIR BOTNIA	KFB
AIR CAIRO	MSC
AIR CANADA	ACA
AIR CHINA	CCA
AIR COMET	MPD
AIR CONTRACTORS (IRELAND) LTD	ABR
AIR CORDIAL LIMITED	ORC
AIR DOLOMITI	DLA
AIR ENTERPRISE PULKOVO	PLK
AIR EUROPA	AEA
AIR EXECUTIVE S.L.	IVE
AIR EXEL NETHERLANDS B.V.	AXL
AIR FRANCE	AFR
AIR GLACIERS SA	AGV
AIR GREENLAND A/S	GRL
AIR INDEPENDENCE LUFT.	JTV
AIR INDIA	AIC
AIR INTERNATIONAL SERVICES	7AI
AIR JAMAICA	AJM
AIR KAZAKSTAN	KZK
AIR KORYO	KOR
AIR LIETUVA	KLA
AIR LUXOR, LDA	LXR
AIR MADAGASCAR	MDG
AIR MALTA PLC	AMC
AIR MAURITANIE	MRT
AIR MAURITIUS LIMITED	MAU
AIR MEDICAL LTD	MCD
AIR MEDITERRANEE	BIE
AIR MEMPHIS	MHS
AIR MOLDOVA	MLD
AIR NEW ZEALAND LTD.	ANZ
AIR NOSTRUM	ANS
AIR ONE	ADH
AIR POLONIA LTD	APN
AIR SAINT KITTS AND NEVIS	7KN
AIR SCANDIC	SCY
AIR SENEGAL INTERNATIONAL	SNG
AIR SEYCHELLES	SEY
AIR SLOVAKIA BWJ LTD	SVK
AIR TRAFFIC GMBH DUSSELDORF	ATJ
AIR TRANSAT	TSC
AIR UKRAINE	UKR
AIR UNIVERSAL LIMITED	UVS
AIR VANUATU	AVN

AIR VIA	VIM
AIR ZENA	TGZ
AIR ZIMBABWE	AZW
AIRCOMPANY KARAT	AKT
AIRCOMPANY TATARSTAN, OJSC	TAK
AIRCOMPANY YAKUTIA	SYL
AIRCRAFT MAINTENANCE COMPANY	AMV
AIRFIX AVIATION	FIX
AIRLINE TRANSPORT INC.	RIN
AIRLINES 400, JSC	VAZ
AIRLONG CHARTER LIMITED	FST
AIRNET 21 JSC	DDD
AIRSTARS, AIRWAY COMPANY	ASE
AIRVALLEE S.P.A.-(VAL D'AOSTE)	RVL
AIRX LIMITED	XAX
ALBA SERVIZI AEROTRASPORTI SPA	AFQ
ALBANIAN AIRLINES MAK S.H.P.K.	LBC
ALBATROS AIRWAYS	LBW
ALITALIA	AZA
ALITALIA EXPRESS	SMX
ALITALIA TEAM	NOV
ALL NIPPON AIRWAYS CO., LTD.	ANA
ALMATY AVIATION, OJSC	LMT
ALPI EAGLES SPA	ELG
AMEL ARUBA LTD. A.V.V.	7AR
AMERICAN AIRLINES INC.	AAL
AMERICAN TRANS AIR, INC.	AMT
AMERIJET INTERNATIONAL	AJT
AMIRI FLIGHT	AUH
ANTONOV DESIGN BUREAU	ADB
APACHE AVIATION	8AH
APATAS	LYT
ARAVCO LTD.	ARV
ARCHANGELSK AIRLINES	AUL
ARCUS-AIR-LOGISTIC GMBH	AZE
ARIANA AFGHAN AIRLINES	AFG
ARKHANGELSK 2 AVIATION DIV.	OAO
ARKIA ISRAEL INLAND AIRLINES	AIZ
ARMAVIA	RNV
ARMENIAN INT. AIRLINES	RME
ARMENIAN INTERNATIONAL AIRWAYS	RML
ASL AIR SERVICE LIEGE	7SL
ASTRAEUS LTD.	AEU
ATLANTA	ABD
ATLANTIC AERO, INC.	MDC
ATLANTIC AIRWAYS FAROE ISLANDS	FLI

ATLANT-SOYUZ	AYZ
ATLAS AIR, INC. (JAMAICA, NY)	GTI
ATLAS BLUE	BMM
ATLAS INTERNATIONAL (TURKEY)	OGE
ATRAN-AVIATRANS CARGO AIRLINES	VAS
AUGSBURG-AIRWAYS GMBH	AUB
AURELA	LSK
AURIGNY AIR SERVICES LTD.	AUR
AUSTRIAN AIRLINES (AUA)	AUA
AVANTI AIR	ATV
AVANTI AIR GMBH, BUDINGEN	EEX
AVANTI AVIATION AACHEN LUFTG.	CLU
AVIACON ZITOTRANS	AZS
AVIANCA (COLOMBIA).	AVA
AVIANT	UAK
AVIAPASLAUGA	AVX
AVIAST LTD, JSC.	VVA
AVIASTAR-TU CO.LTD	TUP
AVIATION MONDIALE	7AB
AVIAVILSA	LVR
AVIENT AVIATION	SMJ
AVIONES DE ORIENTE, C.A.	ROI
AXIS AIRWAYS	AXY
AZALAVIA-AZERBAIJAN HAVA YOL.	AHY
AZZURRA AIR	AZI
BAC EXPRESS AIRLINES LIMITED	RPX
BANGLADESH BIMAN	BBC
BELAIR AIRLINES AG	BHP
BELAVIA	BRU
BENAIR (DENMARK)	8AO
BENAIR AS (NORWAY)	7BE
BH AIR	BGH
BIN AIR GMBH	BID
BINAIR AEROSERVICE	7BA
BIZAIR FLUGGESELLSCHAFT	BZA
BLUE AIRLINES	BUL
BLUE LINE	BLE
BLUE PANORAMA AIRLINES SPA	BPA
BLUE1 OY, FINLAND	BLF
BLUEBIRD CARGO LTD	BBD
BOMBARDIER AEROSPACE	7BO
BRAATHENS ASA	BRA
BRA-TRANSPORTES AEREOS LTDA.	BRB
BRIGHT AVIATION SERVICES	BRW
BRISTOL FLYING CENTRE	CLF
BRISTOW HELICOPTERS GROUP LTD.	BHL

BRITAIR S.A.	BZH
BRITANNIA AB	BLX
BRITANNIA AIRWAYS LTD.	BAL
BRITISH AIRWAYS	BAW
BRITISH MIDLAND AIRWAYS LTD.	BMA
BRITISH MIDLAND REGIONAL LTD	BMI
BRITISH REGIONAL AIRLINES LTD.	BRT
BRUSSELS INTERNATIONAL AIRL.	BXI
BULGARIA AIR	LZB
BULGARIAN AIR CHARTER	BUC
BUSINESS JET SOLUTIONS	BJS
BUZZ STANSTEAD LTD	BUZ
BVBA LUCORP	LIM
BWIA WEST INDIES AIRWAYS LTD	BWA
CABI	CBI
CAIRO AIR TRANSPORT COMPANY	CCE
CAMEROON AIRLINES	UYC
CARGOLUX AIRLINES INT.	CLX
CARIB AVIATION LTD	DEL
CARPATAIR S.A.	KRP
CARRIBEAN WINGS	7CW
CASA AIR SERVICE	7CS
CAT AVIATION AG	CAZ
CATHAY PACIFIC AIRWAYS LTD.	CPA
CENTRE-AVIA AIRLINES, JSC	CVC
CHANNEL EXPRESS (AIR SERVICES)	EXS
CHINA AIRLINES	CAL
CHINA EASTERN AIRLINES	CES
CIMBER AIR A/S	CIM
CIRRUS LUFTFAHRTGESELL. MBH	RUS
CITY AIRLINE AB	SDR
CITYFLYER EXPRESS	CFE
CITYJET	BCY
CLUB 328	7CL
COAST AIR AS	CST
COMFORT AIR MUNCHEN	FYN
COMITEL, BEDARFSFLUGE KG	COE
COMORES AVIATION	KMZ
COMORES AVIATION	7CO
COMPAGNIE NATIONALE AIR GABON	AGN
COMPANIA TRANS. AEREOS DEL SUR	HSS
CONDOR FLUGDIENST GMBH (FRA)	CFG
CONDOR FLUGDIENST GMBH (KELST)	CIB
CONSTANTA	UZA
CONTINENTAL AIR LINES INC.	COA
COPTER ACTION OY	AAQ

CORSE AIR INTERNATIONAL	CRL
CROATIA AIRLINES	CTN
CUBANA DE AVIACION S.A.	CUB
CYPRUS AIRWAYS LTD.	CYP
CZ AIRLINES, J.S.C.	OKC
CZECH AIRLINES J.S.C.	CSA
DAIMLER CHRYSLER AVIATION GMBH	DCS
DAIRO AIR SERVICES,LTD.	DSR
DANISH AIR TRANSPORT	DTR
DANU ORO TRANSPORTAS	7DO
DARWIN AIRLINE SA	DWT
DAS AIR CARGO	DAZ
DELTA AIR LINES, INC.	DAL
DENIM AIR	DNM
DEUTSCHE BA	BAG
DEUTSCHE LUFTHANSA, A.G.	DLH
DHL AIR LIMITED	DHK
DI AIR	DIS
DNIEPROAVIA	UDN
DOMODEDOVO AIRLINES	DMO
DONBASS-EASTERN UKRAINIAN	UDC
DUO AIRWAYS	DUO
DUO AIRWAYS LTD.	DAW
DUTCH CARIBBEAN EXPRESS	DCE
DUTCHBIRD	DBR
DYNAMIC AIR	DYE
EAGLE AVIATION FRANCE	EGN
EAST AFRICAN SAFARI AIR LTD	HSA
EAST LINE AIRLINES	ESL
EASY JET SWITZERLAND SA	EZS
EASYJET AIRLINES CO. LTD	EZY
EDELWEISS AIR AG	EDW
EGYPT AIR	MSR
EL AL - ISRAEL AIRLINES LTD.	ELY
ELBE AIR LUFTTRANSPORT	LBR
EL-BURAQ AIR TRANSPORT INC.	BRQ
EMERALD AIRWAYS LIMITED	JEM
EMIRATES	UAE
ENIMEX LTD	ENI
ENKOR, JOINT STOCK COMPANY	ENK
ERITREAN AIRLINES	ERT
ESTONIAN AIR	ELL
ETHIOPIAN AIRLINES CORPORATION	ETH
ETIHAD AIRWAYS	ETD
EU AIRWAYS	EUY
EU JET	EUJ

EURALAIR HORIZONS	EUH
EURO CONTINENTAL AIE, S.L.	ECN
EUROATLANTIC AIRWAYS	MMZ
EUROCYPRIA AIRLINES LIMITED	ECA
EUROFLY S.P.A.	EEZ
EUROFLY SERVICE	EEU
EUROJET AVIATION LTD	GOJ
EUROJET ITALIA	ERJ
EUROLOT S.A.	ELO
EUROPE AIRPOST	FPO
EUROPE CONTINENTAL AIRWAYS ECA	ECC
EUROPEAN AIR EXPRESS	EAL
EUROPEAN AIR TRANSPORT	BCS
EUROPEAN AVIATION AIR CHARTER	EAF
EUROPEAN EXECUTIVE EXPRESS	EXC
EUROWINGS AG, NURNBERG	EWG
EUROWINGS FLUG GMBH, DORTMUND	EWF
EVA AIRWAYS CORPORATION	EVA
EVERGREEN INTERNATIONAL AIRL.	EIA
EXCEL AVIATION LIMITED	XLA
EXCELLENT AIR GMBH	GZA
EXECUJET SCANDINAVIA A/S	VMP
EXECUTIVE AEROSPACE (PTY) LTD	EAS
EXIN	EXN
FALCON AIR AB	FCN
FALCON AIR EXPRESS (MIAMI, FL)	FAO
FALCON JET CENTER	FJC
FARNAIR NETHERLANDS B.V.	FRN
FARNER HUNGARY LTD	FAH
FARNER SWITZERLAND AG	FAT
FCS, FLIGHT CALIBRATION SERVIC	FCK
FEDERAL EXPRESS CORPORATION	FDX
FINNAIR O/Y	FIN
FIRST CHOICE AIRWAYS	FCA
FISCHER AIR LTD	FFR
FLIGHTLINE	FLT
FLIGHTLINE	FTL
FLORIDA WEST AIRLINES	FWL
FLUGFELAG ISLANDS, ICELAND AIR	FXI
FLY AIR	FLM
FLY BABOO	7FB
FLY TIROL GMBH	FTY
FLYBABOO SA	BBO
FLYBE JERSEY EUROPEAN	BEE
FLYING SERVICE	FYG
FLYJET LTD.	FJE

FORD MOTOR CO. LTD	FOB
FOXAIR	FXR
FREE BIRD AIRLINES	FHY
FUTURA	FUA
G5 EXECUTIVE AG	EXH
GAZPROMAVIA	GZP
GB AIRWAYS LTD	GBL
GEE BEE AIR	GEB
GEMINI AIR CARGO, LLC	GCO
GEORGIAN AIRLINES	GEG
GERMANIA FLUGGESELLSCHAFT KOLN	GMI
GERMANWINGS GMBH	GWI
GESTAIR EXECUTIVE JET	GES
GESTION AEREA AJECUTIVA S.L.	GJT
GHANA AIRWAYS CORPORATION	GHA
GLOBAL JET	7GJ
GLOBAL JET MANAGEMENT	8AD
GLOBAL SUPPLY SYSTEMS LTD.	GSS
GLOBUS AIRLINES	7GC
GOLD AIR INTERNATIONAL LIMITED	GDA
GOLDECK FLUG GMBH	GDK
GOLDEN AIR FLYG AB	GAO
GREECE AIRWAYS	GRE
GST AERO, AIRCOMPANY	BMK
GULF AIR	GFA
HAINAN AIRLINES	CHH
HAMBURG INTERNATIONAL LUFTV.	HHI
HANG KHONG VIET NAM	HVN
HAPAG LLOYD EXECUTIVE	HLX
HAPAG LLOYD FLUGGESELLSCHAFT	HLF
HAVERFORDWEST AIR CHARTER SER.	PYN
HAWAIIAN AIRLINES	HAL
HEAVYLIFT CARGO AIRLINES PTY.	HVY
HELI AIR SERVICES	HLR
HELI SERVICES BELGIUM	HBE
HELI-AIR-MONACO	MCM
HELIOS AIRWAYS LTD.	HCY
HELLAS JET	HEJ
HELLO AG	FHE
HELVETIC AIRWAYS AG	OAW
HEMUS AIR	HMS
HEWA BORA AIRWAYS	ALX
HEX'AIR	HER
HIGHLAND AIRWAYS LIMITED	HWY
HOLA AIRLINES	HOA
IBERIA	IBE



IBERTRANS AEREA S.L.	IBT
IBERWORLD	IWD
ICARO	ICA
ICELANDAIR	ICE
INDIA INTERNATIONAL AIRWAYS	IIL
INTER EXPRESS AIRLINES	INX
INTERJET (GREECE)	INJ
INTERNATIONAL AIR SERVICES	IAX
INTERNATIONAL PAPER CO.	7IP
INTERSKY LUFTFAHRT GMBH	ISK
IRAN NAT. AIRLINES (IRAN AIR)	IRA
IRBIS	BIS
IRISH AIR CORPS	IRL
ISLAND BIRDS	7IB
ISLANDSFLUG (ICEBIRD AIRLINE)	ICB
ISRAIR	ISR
JAMAHIRIYA LIBYAN ARAB AIRL.	LAA
JAPAN AIR LINES COMPANY, LTD.	JAL
JAT (JUGOSLOVENSKI AEROTR.)	JAT
JDP LUX	JDP
JET 2000	JTT
JET AVIATION, BUSINESS JETS AG	PJS
JET CONNECTION	JCX
JETAFRICA SWAZILAND	OSW
JETALLIANCE FLUGBETRIEBS AG	JAF
JETCLUB LIMITED	JCS
JETLINE INC.	JLE
JETX AIRLINES LTD	JXX
JOHNSONS AIR LIMITED	JON
JONAIR AFFARSFLYG	8AQ
JORDAN AVIATION AIRCHARTER	JAV
JV AVCOM	AOC
KALITTA AIR, LLC	CKS
KAM AIR	KMF
KARTHAGO AIRLINES	KAJ
KATO AIRLINE AS	KAT
KAVMINVODYAVIA	MVD
KEENAIR CHARTER LTD.	JFK
KIBRIS TURK HAVA YOLLARI LTD.	KYV
KISH AIR	IRK
KLM CITYHOPPER BV	KLC
KLM ROYAL DUTCH AIRLINES	KLM
KLM UK LIMITED	UKA
KOREAN AIR LINES CO., LTD.	KAL
KOSMOS	KSM
KRASNOJARSKY AIRLINES	KJC

KROONK, AIR AGENCY LTD	KRO
KUBAN AIRLINES	KIL
KUWAIT AIRWAYS CORPORATION	KAC
KUZU CARGO/ BARON AIR CARGO	7KU
KYRGYZSTAN AIRLINES	KGA
L T E INTERNATIONAL AIRWAYS	LTE
LAM - LINHAS AER DE MOCAMBIQUE	LAM
LAN CHILE CARGO	LCO
LAN -LINEA AEREA NAC. DE CHILE	LAN
LATCHARTER	LTC
LAUDA AIR	LDA
LAUS	LSU
LIBYAN AIR AMBULANCE	8AF
LIONS AIR, AG	LEU
LITEX AIR	7LA
LITHUANIAN AIRLINES	LIL
LIVINGSTON S.P.A.	LVG
LONDON EXECUTIVE AVIATION LTD	LNK
LOT - POLSKIE LINIE LOTNICZE	LOT
LOTUS AIRLINE	TAS
LTU LUFTRANSPORTUNTERNEHMEN	LTU
LUFTHANSA CITYLINE	CLH
LUXAIR	LGL
LUXAVIATION S.A.	LXA
LUXOR AIR	LXO
LVOV AIRLINES	UKW
MACEDONIAN AIRLINES (FYROM)	MAK
MAERSK AIR I/S (DENMARK)	DAN
MAHAN AIR	IRM
MALAYSIAN AIRLINES SYSTEM	MAS
MALEV - HUNGARIAN AIRLINES	MAH
MALEV EXPRESS	MEH
MALI AIR LUFTVERKEHRGESELL.	MAE
MALMO AVIATION AB	SCW
MARKOSS AVIATION LTD	MKO
MARTINAIR HOLLAND N.V.	MPH
MBI AVIATION INC.	8AG
MELMIK AVIATION	7MB
MENA JET	MNJ
MERIDIANA SPA	ISS
MID EAST JET INC.	7ME
MIDDLE EAST AIRLINES	MEA
MIDWEST AIRLINES	MWA
MINILINER SRL	MNL
MK AIRLINE LTD	MKA
MNG HAVAYOLLARI VE TASIMACILIK	MNB

MOLDAVIAN AIRLINES	MDV
MONACAIR-AGUSTA	MCR
MONARCH AIRLINES LTD.	MON
MONDAIR	MMA
MONGOLIAN AIRLINES	MGL
MONTENEGRO AIRLINES	MGX
MOTOR SICH	MSI
MOUNTAIN AIR CARGO, INC.	MTN
MURRAY AIR, INC.	MUA
MUSTIQUE AIRWAYS	MAW
MYTRAVEL AIRWAYS (UK)	MYT
MYTRAVEL AIRWAYS A/S	VKG
NEOS SPA	NOS
NETJETS, TRANSPORTES AEREOS	NJE
NEW JET EUROPE	1NJ
NIGEL LAMB AEROBATICS	8AJ
NIGHT EXPRESS, FRANKFURT	EXT
NIPPON CARGO AIRLINES CO.	NCA
NL LUFTFAHRT GMBH	NLY
NOMADS TRAVEL CLUB	2NT
NOORDZEE HELICOPTERS VLAAND.	8AA
NORD-FLYG AB	NEF
NORDIC AIRLINK	NDC
NORDIC REGIONAL AB	NRD
NORTH AMERICAN AIRLINES	NAO
NORTH EAST AIRLINES	NEY
NORTH FLYING A/S	NFA
NORTH SEA AIRWAYS	NRC
NORTHERN EXECUTIVE AVIATION	NEX
NORTHWEST AIRLINES INC.	NWA
NORWEGIAN AIR SHUTTLE AS	NAX
NOUVEL AIR TUNISIE	LBT
NOVA AIRLINES AB	NVR
NOVAIR - AVIACAO GERAL, S.A.	NOP
NOY AVIATION	NOY
OCEAN AIRLINES	VCX
OLYMPIC AIRWAYS S.A.	OAL
OMNI - AVIACAO E TECNOLOGIA	OAV
OMNI AIR EXPRESS, INC. (TULSA)	OAE
ONUR HAVA TASIMACILIK AWMS	OHY
ORBIT EKSPRES HAVA YOL. (OREX)	ORX
ORIENT THAI AIRLINES	OEA
OSTFRIESISCHE LUFTTRANSPORT	OLT
OXAERO	OXE
OY AIR FINLAND LTD. FINLAND	FIF
OY SODER AIR LTD, FINLAND	SDE

PAKISTAN INT. AIRLINES (PIA)	PIA
PANAIR	PNR
PEGASUS HAVA TASIMACILIGI	PGT
PENA TRANSPORTES AEREOS S.A.	PEP
PERSONAL JET CHARTER	7PJ
PHENIX AVIATION	PHV
PHOENIX AIR GROUP, INC (CARTER	PHA
PHOENIX AVIATION	PHG
PHUKET AIRLINES CO., LTD	VAP
PODILIA-AVIA	PDA
POLAR AIR CARGO, INC.	PAC
POLET	POT
PORTUGALIA	PGA
PREMIAIR AVIATION SERVICES LTD	PGL
PREMIER AIRWAYS	7PR
PRINCIPAL AIR SERVICES	8AB
PRIVAT AIR SA	PTI
PRIVATAIR GMBH, DUSSELDORF	PTG
PRIVATE FLIGHT	ZZZ
PSKOV STATE AVIATION ENT.	PSW
PTL LUFTFAHRTUNTERNEHMEN	KST
QANTAS AIRWAYS LIMITED	QFA
QATAR AIRWAYS COMPANY	QTR
RABBIT-AIR AG, ZURICH	RBB
RACE CARGO AIRLINES	ACE
RAF-AVIA	MTL
RATH AVIATION GMBH	RAQ
REGIONAL AIR LINES (MOROCCO)	RGL
REGIONAL AIRLINES (FRANCE)	RGI
REGIONAL LINEAS AEREAS (SPAIN)	RGN
REGIONAL, COMP. AERIENNE EURO.	RAE
RIEKER AIR	SVC
RIVNE UNIVERSAL AVIA	UNR
ROYAL AIR MAROC	RAM
ROYAL BRUNEI AIRLINES	RBA
ROYAL JET	ROJ
ROYAL JORDANIAN	RJA
RUSLINE	RLU
RUTAS AEREAS, C.A.	RUC
RYANAIR	RZR
SAGA HAVA TASIMACILIK A.S.	SGX
SAMARA	BRZ
SARATOGA	8AK
SARATOV AVIATION DIVISION	SOV
SATA - SERVICO A COREANO DE T.A	SAT
SATA INTERNACIONAL	RZO

SAUDI ARABIAN AIRLINES	SVA
SAYAKHAT	SAH
SCANDINAVIAN AIRLINES SYSTEM	SAS
SCHREINER AIRWAYS B.V.	SCH
SEA AIR	7SA
SEAGLE AIR	CGL
SERVAIR, PRIVATE CHARTER AG	SWZ
SERVICIOS AEREOS PROFESIONALES	PSV
SHANS AIR, JOINT STOCK COMPANY	SNF
SHAR INK LTD.	UGP
SHOVKOVIY SHLYAH LTD.	SWW
SIA CARGO PTE LTD	SQC
SIBERIA AIRLINES	SBI
SILK WAY	AZQ
SILVER ARROWS S.A.	SVW
SILVER CLOUD AIR	7SC
SILVER SANDS AIR SERVICE	7SS
SILVERBACK CARGO FREIGHTERS	VRB
SINGAPORE AIRLINES LIMITED	SIA
SIRIO	SIO
SIRIUS-AERO	CIG
SIXCARGO S.P.A.	ISG
SKORPION AIR	SPN
SKY AIRLINES	SHY
SKY EUROPE AIRLINES HUNGARY	HSK
SKY EYES AVIATION THAILAND	8AS
SKY SERVICE	SKS
SKY WIND	AZH
SKYEUROPE AIRLINES, A.S.	ESK
SKYLINE AVIATION	7SK
SKYSERVICE AVIATION, S.L.	SKT
SKYSERVICE F.B.O. INC.	SSV
SKYWAYS EXPRESS AB	SKX
SKYWORK SA	SRK
SLOVAK AIRLINES	SLL
SLOVAK GOVERNMENT FLYING SERV.	SSG
SN BRUSSELS AIRLINES	DAT
SOLAR CARGO C.A.	OLC
SOLINAIR LTD	SOP
SONNIG SA	ONG
SOUTHERN WINDS	SWD
SPANAIR	JKK
SPEEDWINGS SA	SPW
SRILANKAN AIRLINES	ALK
ST. VINCENT GRENADINES AIR	SVD
STAR AIR I/S	SRR

STAR AIR LIMITED	SIM
STAR EUROPE	SEU
STATE AIR COMPANY BERKUT	BEC
STATE TRANSPORT COMPANY RUSSIA	SDM
STATE UNITARY AIR ENTERPRISE	SUM
STERLING EUROPEAN AIRLINES A/S	SNB
STUTTGARTER FLUGDIENST GMBH	FFD
STYRIAN AIRWAYS GMBH	STY
SUN-AIR OF SCANDINAVIA A/S	SUS
SUNEXPRESS -GUNES EKSPRES HAV.	SXS
SURINAAMSE LUCHTVAART MAATS.	SLM
SVEDIJOS PREKES	8AP
SWEDEWAYS AB	SWE
SWIFT COPTERS SA	WFC
SWIFTAIR S.A.	SWT
SWISS AIR-AMBULANCE LTD.	SAZ
SWISS INTERNATIONAL AIR LINES	CRX
SYLT AIR	7YS
SYRIAN ARAB AIRLINES	SYR
TAAG, LINHAS AEREAS DE ANGOLA	DTA
TACV -TRANS. AEREOS CABO VERDE	TCV
TAG AVIATION S.A.	FPG
TAG AVIATION USA	TAG
TAJIKAIR	TJK
TAJIKISTAN	TZK
TAM - LINHAS AEREAS S.A.	TAM
TAROM, ROMANIAN AIR TRANSPORT	ROT
TAUNUS AIR GMBH & CO.	TAQ
TAVREY, AIRCOMPANY	TVR
TEAMLINE AIR LUFTFAHRT GMBH	TLW
TELNIC LIMITED	DOT
TEUTO AIR	7TE
THAI AIRWAYS INTERNATIONAL	THA
THAI JET INTERGROUP CO., LTD	THJ
THOMAS COOK AIRLINES	TCX
THOMAS COOK AIRLINES BELGIUM	TCW
THOMSON FLY	7TF
THOMSONFLY	TOM
TIRAMAVIA LTD	TVI
TITAN AIRWAYS LTD	AWC
TNT AIRWAYS S.A.	TAY
TNT INTERNATIONAL AVIATION	NTR
TRADE AIR	TDR
TRANSAERO AIRLINES	TSO
TRANSAVIA HOLLAND B.V.	TRA
TRANSPORTES AEREOS PORTUGUESES	TAP

TRANSPORTI AERI ITALIANI	ACO
TRAVEL SERVICE LTD (HUNGARY)	TVL
TRAVEL SERVIS (CZECH REP.)	TVS
TRISTAR AIR	TSY
TUI AIRLINES BELGIUM	TUB
TUNINTER	TUI
TUNIS AIR	TAR
TURKISH AIRLINES-TURK HAVA YO.	THY
TURKMENHOVAYOLLARY	TUA
TYROLEAN AIR AMBULANCE GMBH	TYW
TYROLEAN AIRWAYS	TYR
TYROLEAN JET SERVICE	TJS
UKRAINE CARGO AIRWAYS	UKS
UKRAINE INTERNATIONAL AIRLINES	AUI
UKRAINE MEDITERRANEAN AIRLINES	UKM
UNITED AIR LINES INC.	UAL
UNITED ARABIAN AIRLINES	UAB
UNITED PARCEL SERVICE COMPANY	UPS
UNITY AIRLINES	7UA
URAL AIRLINES	SVR
US AIRWAYS	USA
UTAR AVIATION, JSC	TMN
UZBEKISTAN AIRWAYS-HAVO JUL.	UZB
VARBRA SA	8AL
VARIG -VIACAO AEREA RIO-GRAND.	VRG
V-BIRD AIRLINES	VBA
VEGA AIRLINES	VEA
VENEZOLANA SERV EXPR DE CARGA	VEC
VERA AIR TRANSPORT	7VA
VHM SCHUL- UND CHARTERFLUG GMB	VHM
VIAGGIO AIR	VOA
VIBROAIR FLUGSERVICE GMBH	VIB
VIKING AIRLINES AB	VIK
VIM AVIA	MOV
VIP AVIA (Kazakhstan)	PAV
VIP AVIA (Latvia)	PRX
VIRGIN ATLANTIC	VIR
VIRGIN EXPRESS	VEX
VISIG OPERACIONES AEREAS S.A.	VSG
VIZAVI AVIA LTD	8AE
VLAAMSE LUCHTTRANSPORTMAATSCH.	VLM
VOLARE AIRLINES (ITALY)	VLE
VOLARE AVIATION ENT. (UKRAINE)	VRE
VOLGA-DNEPR	VDA
VUELING AIRLINES	VLG
WDL AVIATION (KOLN)	WDL

WELCOME AIR LUFTFAHRT	WLC
WEST AIR LUXEMBOURG S.A.	WLX
WEST AIR SWEDEN AB	SWN
WHITE EAGLE AVIATION LTD	WEA
WHITE WIND	1WW
WIDEROE'S FLYVESELSKAP A/S	WIF
WIND JET S.P.A.	JET
WINDROSE AIR, BERLIN	QGA
WINDWARD ISLANDS AIRWAYS INT.	WIA
WINWARD EXPRESS AIRWAYS	7WE
WIZZ AIR HUNGARY LTD.	WZZ
WORLD AIRWAYS INC.	WOA
YAK-SERVICE	AKY
YAMAL AIRLINES JSC	LLM
YEMENIA, YEMEN AIRWAYS	IYE
YES - LINHAS AEREAS CHARTER	YSS
ZOOM AIRLINES INC.	OOM



## APPENDIX D

### Results of inspections per inspection item

Inspection item	Description	No. inspections (III)	No. findings (F)	F/III
A.Flight Deck/General	A01 General Condition	3478	87	0,025
	A02 Emergency Exit	3026	3	0,001
	A03 Equipment	2928	397	0,136
Documentation	A04 Manuals	2671	278	0,104
	A05 Checklists	2638	75	0,028
	A06 Radio Navigation Charts	2952	259	0,088
	A07 Minimum Equipment List	2851	304	0,107
	A08 Certificate of registration	4047	60	0,015
	A09 Noise certificate (where applicable)	3972	33	0,008
	A10 AOC or equivalent	3920	113	0,029
	A11 Radio licence	4023	56	0,014
	A12 Certificate of Airworthiness	4095	40	0,010
Flight data	A13 Flight preparation	2540	195	0,077
	A14 Weight and balance sheet	2379	122	0,051
Safety Equipment	A15 Hand fire extinguishers	2884	116	0,040
	A16 Life jackets / flotation device	2616	96	0,037
	A17 Harness	2803	75	0,027
	A18 Oxygen equipment	2728	75	0,027
	A19 Flash Light	2705	101	0,037
Flight Crew	A20 Flight crew licence	3586	217	0,061
Journey Log Book / Technical Log or equivalent	A21 Journey Log Book, or equivalent	3136	86	0,027
	A22 Maintenance release	3188	57	0,018
	A23 Defect notification and rectification (incl. Tech Log)	2961	199	0,067
	A24 Preflight inspection	2425	23	0,009
B. Safety / Cabin	B01 General Internal Condition	2943	163	0,055
	B02 Cabin Attendant's station and crew rest area	2493	127	0,051
	B03 First Aid Kit/ Emergency medical kit	2401	115	0,048
	B04 Hand fire extinguishers	2431	94	0,039
	B05 Life jackets / Flotation devices	2325	91	0,039
	B06 Seat belts	2495	32	0,013
	B07 Emergency exit, lighting and marking, torches	2385	242	0,101
	B08 Slides /Life-Rafts (as required)	1838	15	0,008
	B09 Oxygen Supply (Cabin Crew and Passengers)	2195	68	0,031
	B10 Safety Instructions	2366	111	0,047
	B11 Cabin crew members	2157	8	0,004
	B12 Access to emergency exits	2409	177	0,073

	B13 Safety of passenger baggages	1521	42	0,028
	B14 Seat capacity	2013	7	0,003
C. Aircraft Condition	C01 General external condition	3885	478	0,123
	C02 Doors and hatches	3546	122	0,034
	C03 Flight controls	3441	86	0,025
	C04 Wheels, tyres and brakes	3629	303	0,083
	C05 Undercarriage	3563	133	0,037
	C06 Wheel well	3405	82	0,024
	C07 Powerplant and pylon	3367	174	0,052
	C08 Fan blades	2975	42	0,014
	C09 Propellers	559	18	0,032
	C10 Obvious repairs	3086	54	0,017
	C11 Obvious unrepaired damage	3008	84	0,028
	C12 Leakage	3232	288	0,089
D. Cargo	D01 General condition of cargo compartment	2200	152	0,069
	D02 Dangerous Goods	393	59	0,150
	D03 Safety of cargo on board	1247	210	0,168
E. General	E01 General	784	125	0,159

## APPENDIX E

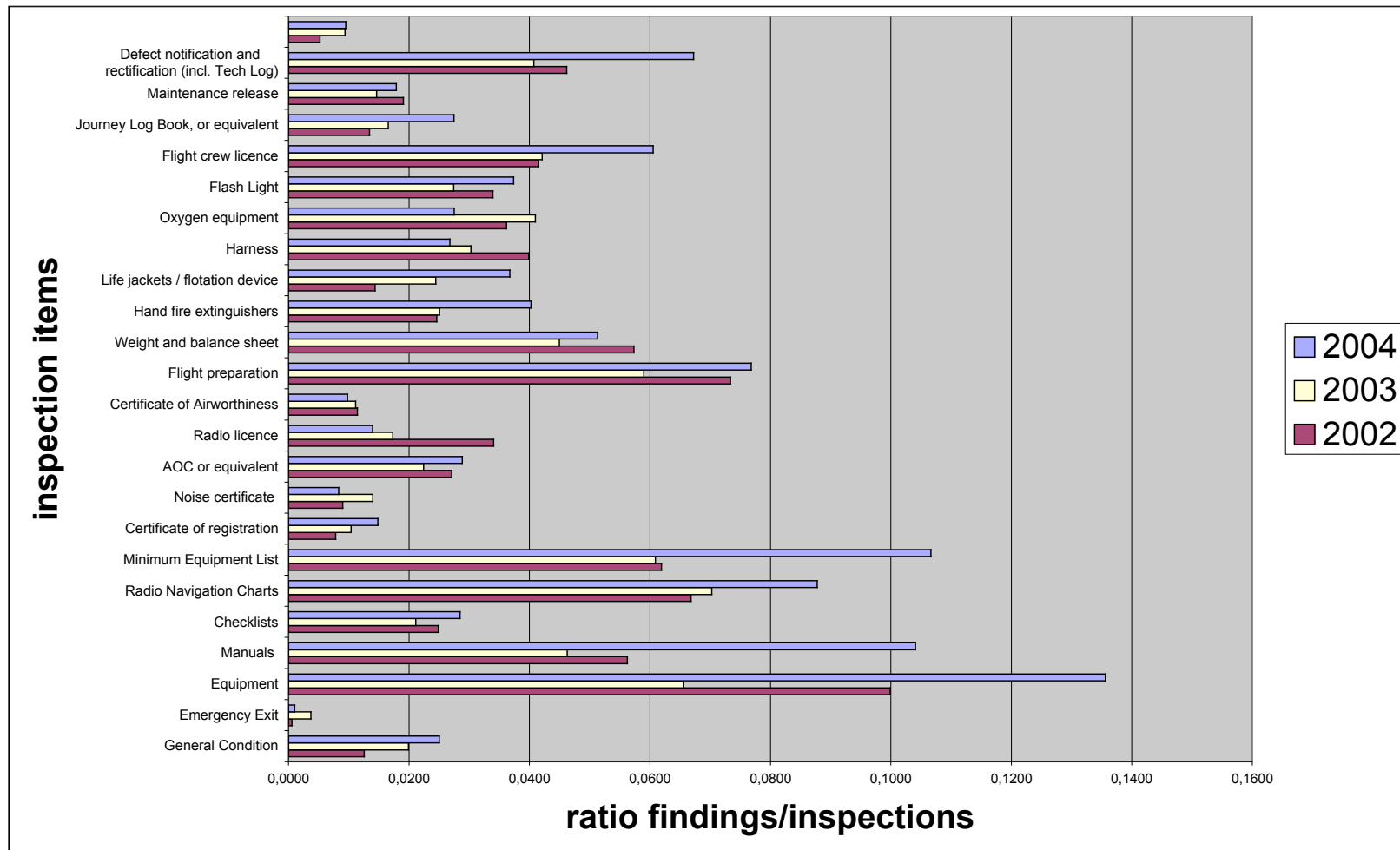
### Results of inspections per inspection item per year

Item	Description	year				
		2000	2001	2002	2003	2004
		F/III	F/III	F/III	F/III	F/III
A01	General Condition	0,0121	0,0241	0,0125	0,0199	0,0250
A02	Emergency Exit	0,0006	0,0029	0,0005	0,0037	0,0010
A03	Equipment	0,0667	0,0706	0,0999	0,0656	0,1356
A04	Manuals	0,0559	0,0467	0,0562	0,0462	0,1041
A05	Checklists	0,0313	0,0331	0,0249	0,0211	0,0284
A06	Radio Navigation Charts	0,0376	0,0695	0,0668	0,0702	0,0877
A07	Minimum Equipment List	0,0690	0,0934	0,0619	0,0609	0,1066
A08	Certificate of registration	0,0140	0,0145	0,0078	0,0104	0,0148
A09	Noise certificate	0,0172	0,0162	0,0090	0,0140	0,0083
A10	AOC or equivalent	0,0363	0,0268	0,0271	0,0224	0,0288
A11	Radio licence	0,0141	0,0171	0,0340	0,0173	0,0139
A12	Certificate of Airworthiness	0,0129	0,0186	0,0114	0,0111	0,0098
A13	Flight preparation	0,0485	0,0721	0,0733	0,0590	0,0768
A14	Weight and balance sheet	0,0543	0,0620	0,0573	0,0450	0,0513
A15	Hand fire extinguishers	0,0233	0,0165	0,0246	0,0250	0,0402
A16	Life jackets / flotation device	0,0227	0,0274	0,0144	0,0244	0,0367
A17	Harness	0,0251	0,0514	0,0399	0,0302	0,0268
A18	Oxygen equipment	0,0137	0,0389	0,0362	0,0410	0,0275
A19	Flash Light	0,0421	0,0419	0,0339	0,0274	0,0373
A20	Flight crew licence	0,0537	0,0511	0,0415	0,0421	0,0605
A21	Journey Log Book, or equivalent	0,0124	0,0189	0,0134	0,0165	0,0274
A22	Maintenance release	0,0201	0,0171	0,0191	0,0146	0,0179
A23	Defect notification and rectification (incl. Tech Log)	0,0528	0,0574	0,0462	0,0407	0,0672
A24	A24 Preflight inspection	0,0100	0,0050	0,0052	0,0094	0,0095
B01	General Internal Condition	0,0534	0,0456	0,0483	0,0476	0,0554
B02	Cabin Attendant's station and crew rest area	0,0254	0,0295	0,0263	0,0318	0,0509
B03	First Aid Kit/ Emergency medical kit	0,0555	0,0547	0,0491	0,0506	0,0479
B04	Hand fire extinguishers	0,0242	0,0218	0,0197	0,0290	0,0387
B05	Life jackets / Flotation devices	0,0351	0,0360	0,0233	0,0314	0,0391
B06	Seat belts	0,0155	0,0101	0,0139	0,0159	0,0128
B07	Emergency exit, lighting and marking, torches	0,0672	0,0850	0,0927	0,0933	0,1015
B08	Slides /Life-Rafts (as required)	0,0156	0,0187	0,0107	0,0152	0,0082
B09	Oxygen Supply (Cabin Crew and Passengers)	0,0298	0,0263	0,0239	0,0367	0,0310
B10	Safety Instructions	0,0305	0,0486	0,0381	0,0440	0,0469
B11	Cabin crew members	0,0008	0,0035	0,0008	0,0044	0,0037
B12	Access to emergency exits	0,0325	0,0307	0,0370	0,0545	0,0735
B13	Safety of passenger baggages	0,0266	0,0375	0,0311	0,0222	0,0276
B14	Seat capacity	0,0017	0,0010	0,0008	0,0016	0,0035

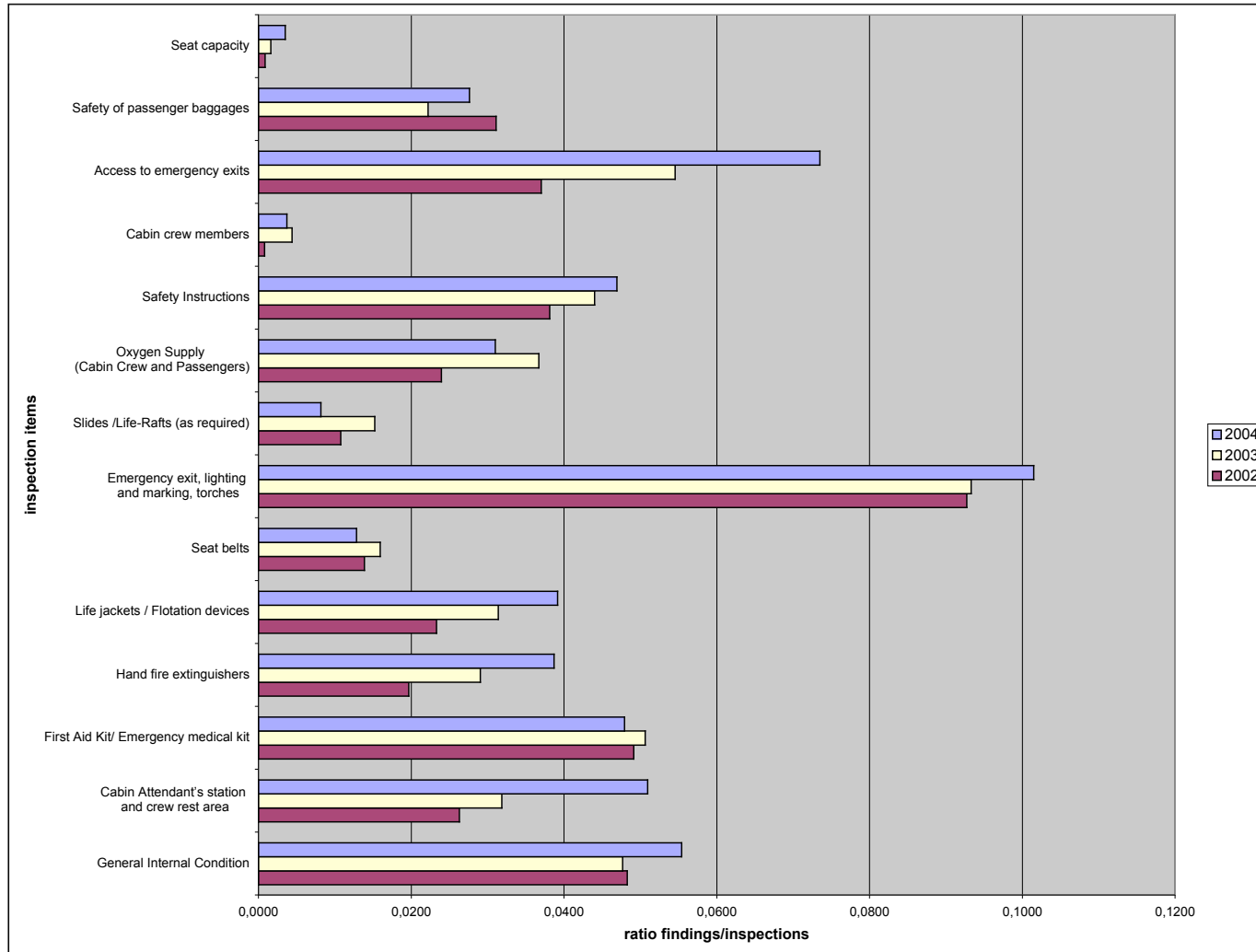
C01	General external condition	0,1013	0,0752	0,0817	0,0916	0,1230
C02	Doors and hatches	0,0158	0,0171	0,0143	0,0110	0,0344
C03	Flight controls	0,0160	0,0185	0,0189	0,0200	0,0250
C04	Wheels, tyres and brakes	0,0358	0,0390	0,0445	0,0592	0,0835
C05	Undercarriage	0,0183	0,0210	0,0171	0,0096	0,0373
C06	Wheel well	0,0137	0,0150	0,0108	0,0125	0,0241
C07	Powerplant and pylon	0,0216	0,0245	0,0329	0,0234	0,0517
C08	Fan blades	0,0101	0,0072	0,0038	0,0083	0,0141
C09	Propellers	0,0150	0,0065	0,0085	0,0202	0,0322
C10	Obvious repairs	0,0145	0,0146	0,0154	0,0096	0,0175
C11	Obvious unrepaired damage	0,0384	0,0435	0,0246	0,0179	0,0279
C12	Leakage	0,0615	0,0472	0,0459	0,0522	0,0891
D01	General condition of cargo compartment	0,0435	0,0618	0,0631	0,0498	0,0691
D02	Dangerous Goods	0,0450	0,1107	0,0997	0,1096	0,1501
D03	Safety of cargo on board	0,1345	0,1079	0,1737	0,1759	0,1684
GEN	General	0,0820	0,0182	0,0576	0,0813	0,1594

F/III = findings per inspection

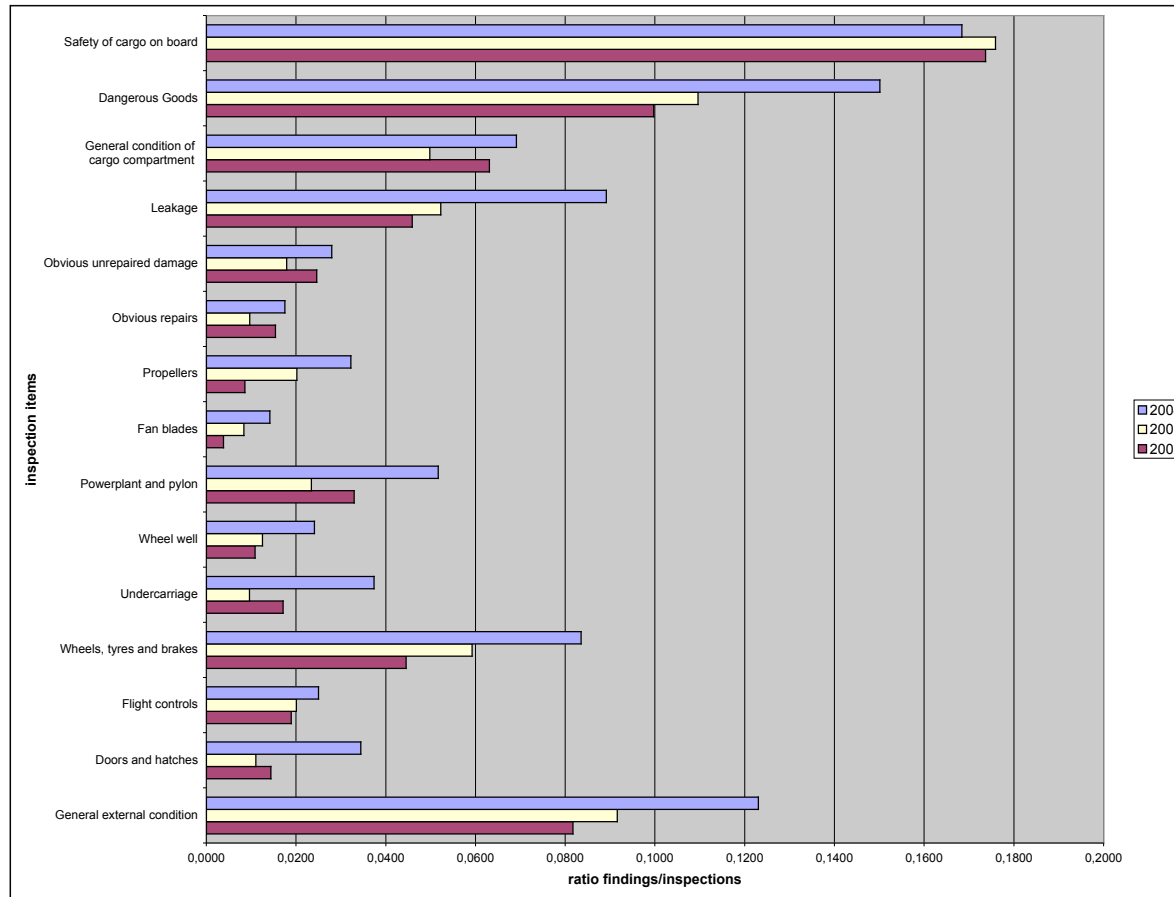
### Appendix E-1 Flight deck — Ratio of Findings in relation to Inspections



## Appendix E-2 Cabin & Safety — Ratio of Findings in relation to Inspections



### Appendix E-3 Aircraft Condition & Cargo — Ratio of Findings in relation to Inspections



## APPENDIX F

### Results of inspections per inspection item

Inspection item	Description	No. inspections (III)	Findings (F)			
			Cat. 1	Cat.2	Cat.3	Total
A.Flight Deck/General	A01 General Condition	3478	31	36	20	87
	A02 Emergency Exit	3026	1	1	1	3
	A03 Equipment	2928	35	347	15	397
Documentation	A04 Manuals	2671	38	237	3	278
	A05 Checklists	2638	9	60	6	75
	A06 Radio Navigation Charts	2952	65	169	25	259
	A07 Minimum Equipment List	2851	34	264	6	304
	A08 Certificate of registration	4047	26	32	2	60
	A09 Noise certificate (where applicable)	3972	26	7		33
	A10 AOC or equivalent	3920	40	59	14	113
	A11 Radio licence	4023	17	39		56
	A12 Certificate of Airworthiness	4095	6	27	7	40
Flight data	A13 Flight preparation	2540	63	98	34	195
	A14 Weight and balance sheet	2379	28	50	44	122
Safety Equipment	A15 Hand fire extinguishers	2884	61	44	11	116
	A16 Life jackets / flotation device	2616	45	43	8	96
	A17 Harness	2803	15	58	2	75
	A18 Oxygen equipment	2728	20	34	21	75
	A19 Flash Light	2705	39	47	15	101
Flight Crew	A20 Flight crew licence	3586	43	114	60	217
Journey Log Book / Technical Log or equivalent	A21 Journey Log Book, or equivalent	3136	29	41	16	86
	A22 Maintenance release	3188	13	21	23	57
	A23 Defect notification and rectification (incl. Tech Log)	2961	74	88	37	199
	A24 Preflight inspection	2425	2	16	5	23
B. Safety / Cabin	B01 General Internal Condition	2943	72	60	31	163
	B02 Cabin Attendant's station and crew rest area	2493	24	62	41	127
	B03 First Aid Kit/ Emergency medical kit	2401	52	50	13	115
	B04 Hand fire extinguishers	2431	52	35	7	94
	B05 Life jackets / Flotation devices	2325	33	40	18	91
	B06 Seat belts	2495	11	12	9	32
	B07 Emergency exit, lighting and marking, torches	2385	62	124	56	242
	B08 Slides /Life-Rafts (as required)	1838	3	11	1	15
	B09 Oxygen Supply (Cabin Crew and Passengers)	2195	20	29	19	68
	B10 Safety Instructions	2366	67	33	11	111
	B11 Cabin crew members	2157	2	6		8
	B12 Access to emergency exits	2409	6	101	70	177
	B13 Safety of passenger baggages	1521	4	10	28	42



	B14 Seat capacity	2013	2	3	2	7
C. Aircraft Condition	C01 General external condition	3885	348	108	22	478
	C02 Doors and hatches	3546	41	76	5	122
	C03 Flight controls	3441	44	33	9	86
	C04 Wheels, tyres and brakes	3629	114	132	57	303
	C05 Undercarriage	3563	77	53	3	133
	C06 Wheel well	3405	50	29	3	82
	C07 Powerplant and pylon	3367	98	66	10	174
	C08 Fan blades	2975	22	13	7	42
	C09 Propellers	559	9	9		18
	C10 Obvious repairs	3086	28	24	2	54
	C11 Obvious unrepaired damage	3008	26	49	9	84
	C12 Leakage	3232	159	105	24	288
D. Cargo	D01 General condition of cargo compartment	2200	54	71	27	152
	D02 Dangerous Goods	393	4	9	46	59
	D03 Safety of cargo on board	1247	15	36	159	210
E. General	E01 General	784	60	54	11	125

cat. 1 = category 1 (minor) finding  
cat. 2 = category 2 (significant) finding  
cat. 3 = category 3 (major) finding

— END —